DOCUMENT RESUME

ED 480 746 EA 032 747

AUTHOR	Norton, Bernie, Ed.; Greco, Jim, Ed.
TITLE	Aiming High: High Schools for the Twenty-First Century.
INSTITUTION	California State Dept. of Education, Sacramento.
ISBN	ISBN-0-8011-1559-0
PUB DATE	2002-00-00
NOTE	186p.; Developed under the High School Initiatives Office, High School Leadership Division. Edited in cooperation with Janice Lowen Agee.
AVAILABLE FROM	California Department of Education, CDE Press, Sales Office, P.O. Box 271, Sacramento, CA 95812-0271 ($13.25). Tel: 800-995-4099 (Toll Free); Fax: 916-323-0823.
PUB TYPE	Books (010) -- Guides - Non-Classroom (055)
EDRS PRICE	EDRS Price MF01 Plus Postage. PC Not Available from EDRS
DESCRIPTORS	*Academic Achievement; *Academic Standards; *Accountability; Data Interpretation; Educational Assessment; Educational Environment; Educational Improvement; Educational Opportunities; Educational Planning; Educational Strategies; *English (Second Language); *High Schools; High Stakes Tests; Instructional Improvement; Outcomes of Education; Parent Participation; Parent School Relationship; *Partnerships in Education; Research Utilization; State Standards; Student School Relationship
IDENTIFIERS	*California

ABSTRACT

This publication is a guide for districts and schools moving toward a standards-based educational system. The information is based on a model developed in California. Chapter 1 explores the concepts and research underlying standards-based education. Chapter 2 guides the reader through standards, tests, and accountability measures. Developing a school-community culture to support the standards movement is the focus of chapter 3. Chapter 4 directly addresses the issue of classroom implementation. Strategies for creating a context for instruction and assessment are outlined in chapter 5. Chapter 6 presents an array of academic supports that high schools can implement to ensure students' opportunity to learn, institutionalize equity, and maximize student achievement. Chapter 7 presents ways to increase the bonds between students and the school. Chapter 8 presents the components of a family and community support system that helps all students master the standards. Chapter 9 focuses on the special needs of English language learners. Chapter 10 reviews the types of data schools can collect, the need for data disaggregation, approaches to data analysis, and strategies for using findings to continually improve schools. An appendix contains a reflection tool to determine a school's progress in implanting a standards-based system. A glossary as well as an extensive list of selected references are also included. (WFA)

Reproductions supplied by EDRS are the best that can be made from the original document.

ED 480 746

Aiming High: High Schools for the Twenty-first Century.

Bernie Norton, Ed.
Jim Greco, Ed.

2002

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

- Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY

C. Robinson

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

2B

EA 032 747

Aiming High

High Schools for the 21st Century

California Department of Education
Sacramento, 2002

Aiming High

High Schools for the Twenty-first Century

Publishing Information

Aiming High: High Schools for the Twenty-first Century was developed under the direction of the High School Initiatives Office, High School Leadership Division, California Department of Education. It was edited for content by Bernie Norton, Manager, and Jim Greco, Consultant, High School Initiatives Office, working in cooperation with Janice Lowen Agee, Executive Editor, Office of the Superintendent. It was prepared for printing by the staff of CDE Press: Sheila Bruton, Faye Ong, and Allison Smith, editors; Cheryl McDonald, cover and interior designer; Jeannette Huff, typesetter. It was published by the Department, 721 Capitol Mall, Sacramento, California (mailing address: P.O. Box 944272, Sacramento, CA 94244-2720), and was distributed under the provisions of the Library Distribution Act and *Government Code* Section 11096.

© 2002 by the California Department of Education
All rights reserved

ISBN 0-8011-1559-0

Ordering Information

Copies of this publication are available for $13.25 each, plus shipping and handling charges. California residents are charged sales tax. Orders may be sent to the California Department of Education, CDE Press, Sales Office, P.O. Box 271, Sacramento, CA 95812-0271; FAX (916) 323-0823. See page 164 for complete information on payment, including credit card purchases. Prices on all publications are subject to change.

A partial list of other educational resources available from the Department appears on page 164. In addition, an illustrated *Educational Resources* catalog describing publications, videos, and other instructional media available from the Department can be obtained without charge by writing to the address given above or by calling the Sales Office at (916) 445-1260 or (800) 995-4099.

Notice

The guidance in *Aiming High* is not binding on local educational agencies or other entities. Except for the statutes, regulations, and court decisions that are referenced herein, the document is exemplary, and compliance with it is not mandatory. (See *Education Code* Section 33308.5.)

Prepared for publication
by CSEA members.

Contents

A Message from the State Superintendent of Public Instruction v
Preface vii
Acknowledgments ix
Executive Summary xiii

Chapter 1. Using Standards-Based Education to Raise the Bar 1
  Education and the Economy 1
  Education and a Democracy 3
  Standards-Based Education 4
  Educational Equity and Opportunity to Learn 7
  A Look Back, A Look Forward 8

Chapter 2. Understanding Standards, Assessment, and Accountability 12
  Rigorous Standards Tied to High-Stakes Accountability 15
  Mandatory Statewide Assessments 17
  Other Assessments and Requirements 20
  Other Content/Career Standards and Assessments 23
  Public Accountability 24
  Activities Necessary for Standards Achievement 25

Chapter 3. Creating the Context for Standards-Based Education 29
  Creating the School Culture to Support Standards-Based Education 30
  Creating Vertical Alignment with Feeder Middle Schools 37

Chapter 4. Implementing Standards-Based Instruction and Assessment 41

Chapter 5. Initiating Instruction and Assessment of Local Outcomes 62
  Types of Local Outcomes 62
  Creating the Context for Implementation of the Local Outcomes 65
  Developing the Educational System for Local Outcomes 66

Chapter 6. Supporting Student Academic Success 77
The Need for Academic Supports 77
Forms of Academic Supports 78
Chapter 7. Creating Structural Supports for Student Success 92
Creating Smaller, More Personalized Learning Environments 92
Maximizing Instructional Time 99
Encouraging Student Responsibility 102
Chapter 8. Promoting Family and Community Supports for Student Success 108
Making Families as Partners a Reality 109
Forging Strong Partnerships with Postsecondary Educational Institutions 113
Offering Wraparound Tutorials 115
Developing Community Partnerships for Support 118
Working with Families and the Community 121
Chapter 9. Developing Academic Literacy for Student Success 124
English-Language Development Standards 125
English-Language Development Courses 126
SDAIE, Scaffolding, and Standards 128
Academic Literacy for All 134
Chapter 10. Using Data for Continual Improvement 136
Outcome Data 137
Demographic Data 141
Process Data 141
Appendix: Reflection Tool 145
Glossary 150
Selected References 156

Tables

1. Instruction and Assessment in Different Educational Systems 6
2. Framework of a Standards-Based Educational System 14
3. Tests Used to Assess Student Learning in High School 16
4. Tentative Timeline for the Proposed Phase-in of Indicators in the API 26
5. Skills and Knowledge Required for the Gift Horse Project 133
6. Uses of Achievement Data 139

A Message from the State Superintendent of Public Instruction

High school can be a time of "high anxiety" for many students. It is the final step in the schooling process before students reach adulthood, and it is often a time of joyous anticipation mixed with anxious trepidation. Sometimes high school students confidently act as though they know all the answers; at other times, they nervously fear that they know nothing at all. It is also *our* last chance as educators to prepare these students for whatever path they choose to embark on next—whether it is postsecondary education, technical training, or the workforce.

High school students today face unique challenges and remarkable opportunities as does the education community as a whole. Our goal is now clear. We have statewide standards in place, and we must ensure that all students meet these standards. Every student must have higher skills than ever before; without advanced skills, students will be unable to succeed in our increasingly complex, technological world. In a society of unprecedented diversity, we must ensure that our students share a common culture and common cause by being steeped in our democracy's history and the values held dear by our nation and its people.

Aiming High was conceived as a how-to document helping to place standards-based education in the context of California's rigorous new accountability system. The report's focus is intended to guide schools in "doing the right things" and in "doing things right."

The ultimate purpose of *Aiming High* is to provide a road map for raising student achievement. Although this task is not easy, it is no exaggeration to say that the results of this effort will dictate the future employability of our graduates, the future viability of our system of public education, and indeed, the future health of the nation as a whole.

The school reforms of the last decade are here to stay. Recent data indicate that high schools have shown the smallest achievement increases. We must redouble our efforts to assist our young people in gaining high skills and greater knowledge even as we must stem the tragically high levels of dropouts. Nothing less than the fate of the republic is at stake.

Surely this is a cause worth the effort of aiming high.

Delaine Eastin

DELAINE EASTIN
State Superintendent of Public Instruction

Preface

High school is children's gateway to opportunity. It is the place where children go each day to learn about this country's past, the present, and the possibilities for the future. It is where dreams are born, knowledge and skills are learned, and lifelong friendships are forged.

High school has needed to change over the years to maintain its relevance in preparing children for lifelong learning and productive citizenship. In past education reform efforts, the central question has been, What should education provide for our youths? In previous education documents, a particular philosophy or approach was often presented, and ideas or methods for achieving that philosophical direction were suggested. *Aiming High* takes a different approach. It starts with the state's focus on standards and accountability, which defines what *all* youths should know and be able to do by the time they exit high school. Therefore, *Aiming High* presents information, strategies, and resources for achieving the state goals and for providing a well-balanced high school education and experience for all students.

Education is in transition from a system based on process and progress for some children to a system accountable for ensuring that all students achieve. In California all students should have the opportunity to reach high academic standards. The world today requires higher standards of performance. To meet those needs educators must be clear about how instruction can be improved to deliver the standards and facilitate mastery by all students.

The state's focus on specific outcomes provides a clarity not previously enjoyed by educators. Some formidable challenges and serious consequences are now evident. Many students are clearly not achieving at sufficiently high levels. Schools need tools that will enable them to determine the underlying causes for inadequate achievement levels and then make appropriate organizational changes and instructional decisions based on that information.

This document provides a variety of resources to assist schools in diagnosing their students' learning needs and implementing instructional programs designed to help all students in achieving at high levels. *Aiming High* does not suggest that all high schools must adopt identical organizational designs or instructional strategies. However, all high schools must accomplish the same purpose; namely, ensuring that all students have the opportunity to reach high academic standards. *What* high schools must accomplish has been specified by the state. *How* to reach the goal is the decision of each school district and high school.

JOANNE MENDOZA
Deputy Superintendent
Curriculum and Instructional Leadership Branch

PATRICK AINSWORTH
Associate Superintendent and Director
High School Leadership Division

BERNIE NORTON
Manager
High School Initiatives Office

Acknowledgments

The California Department of Education extends its appreciation to many educators, the authors, and numerous individuals in the Department who were involved in the development of *Aiming High*.

California Educators

Barbara Brooks, Director, Educational and School Services, San Diego Unified School District, San Diego
Marcia Bush, Coordinator, South Santa Clara County Regional Occupational Program, Gilroy
Jack Caselles, Instructor and California Teachers Association Representative, Gladstone High School, Azusa Unified School District, Azusa
Sheila Cooper, Principal, Livermore High School, Livermore Valley Joint Unified School District, Livermore
Bob Ferguson, Superintendent, El Dorado Union High School District, Diamond Springs
Jackie Flowers, Director, San Joaquin County Office of Education, Stockton
Ron Fontaine, Director, Categorical/Cooperative Projects, Kern County Office of Education, Bakersfield
Linda Frost, Superintendent, Summerville Union High School District, Tuolumne
Cathy George, Consultant, Elementary Networks Office, California Department of Education
Phil Hamilton, San Bernardino County Superintendent of Schools Office, San Bernardino
Ada Hand, Consultant, Elementary Model Programs and Networks Office, California Department of Education
Lynda Holmes, Curriculum Director, San Juan Unified School District, Carmichael

Note: The titles and locations of persons included in this list were current at the time the document was developed.

Cricket Kidwell, Coordinator, Trinity County Office of Education, Weaverville

Chris King, Director, Assistant Superintendent, Stanislaus County Office of Education, Modesto

Jerry Klein, Administrator, Redondo Beach Unified School District, Redondo Beach

Julia Koppich, Director, High School Reform Project, San Francisco

Judith Warren Little, Graduate School of Education, University of California, Berkeley

David Marsh, Professor, University of Southern California, Los Angeles

John McIntosh, Principal, Carpinteria Middle School, Carpinteria Unified School District, Carpinteria

Peter Murphy, Executive Director, California League of High Schools, Irvine

Craig Nelson, Consultant, Instruction and Professional Development, California Teachers Association, Burlingame

Barbara Nemko, Superintendent, Napa County Office of Education, Napa

Mary Ann Overton, Consultant, Middle Grades Networks Office, California Department of Education

Louise Phipps, Principal, Mar Vista High School, Sweetwater Union High School District, Imperial Beach

Jack Pickens, Principal, Jenny Lind Elementary School, Calaveras Unified School District, San Andreas

Sandra Robbins, Principal, San Gorgonio High School, San Bernardino Unified School District, San Bernardino

Anne Scott, Principal, Highland High School, Kern Union High School District, Bakersfield

Barry Tambara, Administrator, San Bernardino County Superintendent of Schools Office, San Bernardino

Carole Toy, Instructor, New Technology High School, Napa Valley Unified School District, Napa

David Williams, Instructor, Manual Arts Senior High School, Los Angeles Unified School District, Los Angeles

Darryl Yagi, Counselor and California Federation of Teachers Representative, Casa Grande High School, Petaluma Joint Union High School District, Petaluma

Field Reviewers

Richard Foley, Administrator, Curriculum Services, San Mateo County Office of Education, Redwood City

Marilyn S. George, Associate Executive Director, Western Association of Schools and Colleges, Burlingame

Gloria L. Johnston, Superintendent, West Contra Costa Unified School District, Richmond

Ruth Ann McKenna, Superintendent, New Haven Unified School District, Union City

Roman Stearns, Project Coordinator, University of California, Berkeley

Authors

Special appreciation is extended to **Lynne Vaughan** and **Eileen Warren,** California Institute on Human Services, Sonoma State University

United States Department of Education

Gail Schwartz, Director, New American High Schools, Washington, D.C.

Sonoma State University Staff

Tony Apolloni, Associate Vice-President
Kathy Chenault, Researcher
Karen Gerstein, Researcher
Hee-Won Kang, Professor of Education
George Triest, Associate Director, California Institute on Human Services
Nara Vaughan, Researcher

California Department of Education Project Leadership Staff

Leslie Fausset, Chief Deputy Superintendent, Policy and Programs
Joanne Mendoza, Deputy Superintendent, Curriculum and Instructional Leadership Branch
Patrick Ainsworth, Associate Superintendent and Director, High School Leadership Division
Bernie Norton, Manager, High School Initiatives Office
Janice Lowen Agee, Executive Editor, Office of the Superintendent
Jim Greco, Consultant, High School Initiatives Office
Joyce McLean, Consultant, High School Initiatives Office
Karen Shores, Consultant, High School Initiatives Office

Executive Summary

Aiming High is built on the legacy of *Second to None*, California's visionary guideline for high school reform.[1] During the last decade many improvements have been made in California high schools, but continued concern has focused on poor results in student achievement. To spur schools to produce graduates with higher levels of achievement and skills, California educators and policymakers created academic content standards and a statewide assessment system to measure both schools' and individual students' progress in mastery of standards.

These standards are a part of a national movement that is here to stay. The American public demands high standards in every walk of life. Now it is demanding high standards in education. Surveys show that the public's approval rating for standards-based education remains at an all-time high, and 49 of 50 states have responded by adopting academic standards.

The most important point is that standards-based education works. It absolutely *will* raise the achievement of students across the board, regardless of race, ethnicity, gender, or socioeconomic background. A recent meta-analysis of 53 research studies found that when students were clear in advance about what they were supposed to learn (that is, the standards), their achievement test scores averaged 34 percentile points higher on tests than did the scores of students in control groups.[2] The question now is how to deliver standards-based education.

Aiming High was written to help the school community grapple with the myriad issues in implementing a standards-based educational system. Among the many issues schools struggle with are how to:

- Create a standards-based school culture.
- Offer appropriate professional development.
- Target the essential standards and local outcomes.
- Design curriculum and pedagogy to maximize mastery of standards and outcomes.
- Align content standards and performance levels with feeder middle schools.
- Ensure that target standards and outcomes are taught and assessed multiple times.
- Provide substantial additional support for students having difficulty mastering the standards or achieving the outcomes.
- Involve families, postsecondary education, and the community in the process.
- Collect, analyze, and use data to ensure continual improvement.

Completing these tasks will result in higher achievement for all students. This achievement, however, is not won by sacrificing a balanced education. A standards-based system does not force schools to focus solely on targeted state academic standards. Focusing only on these standards would not meet the high school's overall mission: to graduate young adults ready for postsecondary education and careers, economic self-sufficiency, and effective citizenship.

In California, state and local assessments work together to measure student achievement. Statewide testing, such as the *Stanford Achievement Test (Ninth Edition), Form T,* the *California High School Exit Examination (CAHSEE),* and *Golden State Examinations,* takes a snapshot in time of student mastery of state standards. Because statewide assessments measure student mastery of academic standards, they are closely related to *preparing students for postsecondary education and careers.*

Local assessments serve as benchmarks of student progress toward meeting state standards. The local assessments ascertain ongoing development of student learning through classroom assessments and end-of-course outcomes. Because local assessments take place in various contexts, they add dimension to the assessment picture. Local assessments integrate academic content with mastery of career-technical and visual and performing arts standards and other community expectations. Therefore, locally developed assessments allow students to demonstrate real-world skills. Because of their broader context, local assessments are most closely related to preparing students for *economic self-sufficiency and effective citizenship.* These standards and outcomes are interdependent and equally important.

Responding to the national call for student mastery of rigorous standards, the U.S. Department of Education commissioned a nationwide search for high schools that were successfully implementing comprehensive education reform strategies. Through this process the U.S. Department of Education identified 12 characteristics that these vanguard schools had in common. The characteristics that enhance student achievement consistently in secondary schools across America are as follows:

- All the school's core activities concentrate on student learning and achievement.
- All students are expected to master the same rigorous academic content; high expectations are established for student achievement.
- Staff development and planning emphasize student learning and achievement.
- Schools use curricula that are challenging and relevant and cover content in depth.
- Schools use multiple forms of assessment.
- Students receive extra support from adults.
- Students learn about careers and college opportunities through real-life experiences.
- Schools create small, highly personalized, and safe learning environments.
- Students have opportunities to gain computer and other technical skills.
- Periods of instruction are longer and more flexible.
- Strong partnerships are forged with middle schools and colleges.

- Schools form active alliances with families, employers, community members, and policymakers to promote student learning and ensure accountability for results.

These research-based characteristics are discussed in *Aiming High*. Districts and schools moving toward a standards-based educational system will find *Aiming High* a resource for (1) defining what standards and outcomes to address; (2) delineating how to successfully teach and assess standards and outcomes; (3) providing supports to enable students to meet high standards and outcomes; and (4) gathering and using data for continual improvement of the system. The appendix contains a reflection tool to determine a school's progress in implementing a standards-based educational system. Following the appendix is a glossary of terms. Each chapter is described briefly below.

Chapter 1, "Using Standards-Based Education to Rais[illegible]he Bar," begins with the backdrop of California's new "hourglass" economy. To be economically self-sufficient, students need access to the top of the hourglass—jobs with good pay and the greatest growth rate—but those occupations require significant postsecondary education or training. To remain economically viable in the global economy, the state must meet the labor market requirements and produce employees who think and function at high levels. For this country to survive as a democracy, students must have the skills and knowledge to exercise both the rights and the responsibilities of citizenship.

The chapter explores the concepts and research underlying standards-based education as a method of raising the bar of expectation and achievement for all California students. The chapter also defines a standards-based educational system—what it looks like and how it differs from a traditional system.

Chapter 2, "Understanding Standards, Assessment, and Accountability," guides the reader through standards, tests, and accountability measures and then focuses on how to target a manageable number of key standards.

"High-stakes tests" for schools and students are explained in relation to the state standards, and both mandatory and voluntary tests are analyzed in terms of helping the school focus on a key set of standards. The standards and outcomes chosen should align with state-mandated assessments, such as *CAHSEE*, and local accountability measures, such as Expected Schoolwide Learning Results.

Chapter 3, "Creating the Context for Standards-Based Education," focuses on developing a school community culture to support the standards movement. It details the roles of the local school board, district administrators, principal, faculty, and school staff in implementing the standards system and discusses the need for professional development and resources to support the effort.

A section on vertical alignment with feeder middle schools stresses the new importance of ongoing dialogue and coordination between high schools and middle schools because of the high percentage of items on *CAHSEE* that reflect middle school academic content standards.

Chapter 4, "Implementing Standards-Based Instruction and Assessment," directly addresses the issue of classroom implementation. This chapter offers a step-by-step guide to implementing standards-based instruction and assessment in the classroom, featuring details and examples of five activities:

- Selecting and analyzing standards to be met
- Designing and selecting an assessment by which students can demonstrate mastery of standards
- Identifying what students must know and be able to do to perform well on the assessment
- Planning lessons so all students have opportunities to learn and practice the skills and knowledge
- Examining student work to plan further instruction or support and to grade the work

How to design effective in-class assessments is emphasized because assessment design precedes instruction. A section on grading identifies approaches to reconciling a standards-based educational system with traditional grading practices.

Chapter 5, "Initiating Instruction and Assessment of Local Outcomes," reinforces the principle that local outcomes and the state academic content standards together form the cornerstone of school improvement. The chapter provides strategies for creating a context for instruction and assessment. It also identifies four categories of local outcomes: curriculum standards, end-of-course outcomes, graduation requirements, and Expected Schoolwide Learning Results.

Chapter 6, "Supporting Student Academic Success," presents an array of academic supports that high schools may implement to ensure students' opportunity to learn, institutionalize equity, and maximize student achievement. The understanding that all students can learn at high levels is rooted in research and is absolutely essential to a standards-based educational system. To translate this concept into reality, schools must provide extra help to students who are at risk of not meeting standards, help that often requires reallocating resources and redirecting teacher time. Details and examples are provided for many strategies, including tutorials within the school day, distance learning, and embedded support.

Chapter 7, "Creating Structural Supports for Student Success," presents ways of increasing the bonds between students and the school. Strategies include student-led conferences or exhibitions, advisories, and *looping* (the practice of assigning a teacher to the same group of students as they progress to the next grade level). A section on alternative scheduling discusses the advantages and disadvantages of various scheduling options. Because implementing standards in the classroom usually requires an enormous investment of staff time to craft new lesson and unit plans, assessments, and reporting systems, this section discusses how to ensure regular time for collaborative planning.

Chapter 8, "Promoting Family and Community Supports for Student Success," presents the components of a family and community support system that helps all students master rigorous standards and outcomes. Schools can choose from options to make "families as partners" a reality, not just a slogan, and bring in community organizations and businesses to support the effort. A section on developing strong partnerships with colleges and universities features strategies and resources to support increased student academic achievement and higher education aspirations.

Chapter 9, "Developing Academic Literacy for Student Success," focuses on the special needs of the more than 1.5 million English learners in the schools and other needs of students unprepared for the more demanding academic literacy. This section discusses English-language development standards and courses as well as techniques to assist English learners in attaining academic literacy and proficiency in targeted standards.

Chapter 10, "Using Data for Continual Improvement," reviews the types of data schools can gather, the need for data disaggregation, approaches to data analysis, and strategies for using findings to continually improve schools. Using various data to document the results of systemic reform — and adjusting programs in light of the results—is absolutely essential.

Aiming High outlines a plan for raising student achievement and integrating standards-based education in a rapidly changing world. State accountability requirements, local outcomes, and educational research findings enable educators to design an educational system that fits local needs and supports student success, staff engagement, and stakeholder involvement.

In *The Long Boom*, Peter Schwartz says that *all* young people "will have to become veritable learning animals [as] learning is everyone's only chance. An individual has no choice but to learn and to learn fast."[3] How high must the bar be raised? How much will students need to learn to be competitive in this new world economy?

And who are students' guides on this learning journey? If not educators, then who? If not now, when?

Notes

1. *Second to None: A Vision of the New California High School.* Report of the California High School Task Force. Sacramento: California Department of Education, 1992.
2. Robert J. Marzano, *A Theory-Based Meta-Analysis of the Research on Instruction.* Aurora, Colo.: Mid-continent Research for Education and Learning, 1998. Available on the Web site <*http://www.mcrel.org/products/learning/meta.pdf*>.
3. Peter Schwartz and others, *The Long Boom: A Vision for the Coming Age of Prosperity.* New York: Perseus Books, 1999, p. 269.

1

Using Standards-Based Education to Raise the Bar

Consider this scenario:

> *A dozen men and women are seated around a conference room table for a weekly meeting. A casually dressed young man stands before an easel, recording statistics and notes as the group wrestles with the challenges of meeting the company's standard for production of an electrical component. Numbers go up on the flip chart. The group is about 10 percent short of its goal. There is some technical discussion. Then options related to work coordination, ways to change the manufacturing process, scheduling, and so on are presented by each team member.*
>
> *None of the team members are managers. They are hourly employees at a General Electric plant engaged in "knowledge work"—the work of planning, supervising, scheduling, and managing—as part of their job description.*[1]

Education and the Economy

General Electric's team approach to knowledge work is one example of how companies are restructuring as America shifts to a new version of the global economy.[2] This shift is a major adjustment in the way America works—it is more than a blip on the economic scene. Indeed, Alan

Greenspan, chair of the Federal Reserve Bank under Democratic and Republican administrations, characterizes this economic shift as a "once-in-a-century event" that is changing the very nature of work.[3] The economic impact of this shift is comparable to that of the Industrial Revolution.[4] California's education and training systems must be expanded and *radically* reformed to take full advantage of the potential of this economic revolution. A well-educated workforce is both a corporate priority and a necessity for expanding the ranks of high- and middle-wage workers.[5]

An expanded and radically reformed education system that produces a well-educated workforce will have at least two effects:

- Such a system will keep California competitive in the global economy.
- Individual graduates will have the opportunity to earn decent wages.

Education clearly is the key to students' economic survival in California's emerging "hourglass" economy, an economy characterized by growing wealth concentrated in the hands of a relatively small group while workers in the middle and lower wage ranges continue to experience a real erosion in income.[6]

Current California employment projections testify to this acceleration of the hourglass economy. Within the next decade the vast majority of jobs will require postsecondary training or education, and the remaining handful will be low-skill, low-pay jobs.[7] Even in the period 1999–2001, 34 percent of new jobs created required at least a bachelor's degree,[8] and 90 percent required more than a high school level of literacy and mathematics skills.[9]

Preparing youths in California to compete for the increasing numbers of high-skill, high-wage jobs presents a significant challenge to educators. Consider, for example, the following demographics:

- About half the children in California live near or below the poverty line.[10]
- One in every four California students—1.48 million—speaks little or no English.[11]

- The rate at which young people in California complete high school (i.e., earn a diploma or pass the GED test) by age 25 is only 80 percent.[12]

These challenges are particularly significant in light of *a projected 40 percent enrollment increase* between 1996 and 2008 in California's high schools.[13] Working with these challenges, California high schools must realize the vision of *Second to None:* We must produce young people who know how to think and learn; gather, organize, and analyze information and apply it in solving problems; and work collaboratively with others.[14]

Education should focus on clear, relevant, high standards in both academic content and the thinking and management skills required for new jobs. California now has a standards-based accountability system for education to ensure that *every* student is prepared to succeed in postsecondary education and careers. The Public Schools Accountability Act of 1999 clearly demonstrates the state's commitment to ensure that each child in California receives a high-quality education based on State Board of Education-adopted content and performance standards "and with a meaningful assessment system and reporting program requirements."[15]

Education and a Democracy

On November 8, 2000, the nation awoke to discover that a president of the United States still had not been elected. In the weeks of debate that followed, two travesties were clear: the failure of American youths to make the responsible choice to vote at all and the failure of many voters to record their choices effectively. Hours of television interviews revealed that many citizens had not understood the mechanics of the voting process. Some eighteen-year-olds said that they were just too busy to get to the polls or that they had not "studied up on the issues."

As the presidential election of 2000 so dramatically proved, the "education increasingly required" is not just that designed to provide access to good jobs in the hourglass economy. It is also the education that will engage *all* graduates in building the democracy that is the heart of

America. The quality of life in America has depended on citizens availing themselves of freedom and economic opportunity—privileges not enjoyed by the vast majority of the world.

A truly democratic society offers all students the opportunity to learn and excel by providing them with an education that gives them:

- The skills required to do their best to adapt to a changing economy and to maintain California's position in the new global, information economy
- The skills and understanding required to be a contributing member of the community and maintain the democratic process through the exercise of the fundamental rights and responsibilities of citizens

These two skill sets do not exist in isolation; they are interrelated: "Democracy doesn't work with an illiterate population or if some groups are literate and others aren't. . . . Literacy for all and a set of common values that unite rather than divide are the keys to democracy."[16]

Many of the skills sought by business are clearly those that are the cornerstone competencies and personal qualities of a strong democracy.[17]

High standards for student achievement are necessary for two purposes: First, mastery of state content standards is necessary for students to prepare for postsecondary education and careers. Second, students, in the achievement of local outcomes, including content standards, end-of-course outcomes, graduation requirements, and Expected Schoolwide Learning Results (ESLRs), demonstrate the skills, attitudes, and knowledge the community deems essential for productive citizenship. The state's standards, assessment, and accountability system is at the core of local outcomes, making the state and local systems complementary and interdependent.

Standards-Based Education

> Standards are not new to education; educators have always had goals and expected levels of achievement for students. *What is new is the vision of a*

> *standards-based educational system in which curriculum, instruction, assessment, and reporting to parents, students, and the public are all aligned to a common set of standards.* [Emphasis added][18]

Standards are generally divided into two types: content and performance. Content standards define *what* students should know and be able to do. Performance standards are derived from content standards and define *how* or *how well* students must perform. Performance standards set the *level of mastery* expected for the content standards. A student's progress in mastering content standards is measured both statewide and locally.

Statewide tests, such as the *Stanford Achievement Test (Ninth edition), California Standards Tests,* and *California High School Exit Examination (CAHSEE),* capture a snapshot in time of student mastery of state standards. Local assessments serve as benchmarks of student progress toward meeting state standards. They ascertain ongoing student learning through classroom assessments and end-of-course outcomes. Because local assessments take place across a variety of contexts, they add dimension to the assessment picture. Local assessments integrate academic content with mastery of career-technical education and fine arts standards as well as with ESLRs and other community expectations. Locally developed assessments allow students to demonstrate real-world skills.

Table 1 shows the difference between instruction and assessment in traditional practice and in a standards-based educational system.[19]

Research proves that a standards-based curriculum helps mitigate the "significant achievement gap that exists . . . between rich and poor . . . and among ethnic and cultural groups."[20] Indeed, full implementation of standards-based instruction and assessment was the *most important factor* identified by the Education Trust in a 1999 study. The study identified 366 schools in 21 states that were "high performing" or "most improved" on achievement tests and that had at least 50 percent of the students living at or below the poverty level. "These schools have become places where *all classroom activity is aligned with state standards.*" [Emphasis added][21]

Table 1 Instruction and Assessment in Different Educational Systems

Traditional educational system	*Standards-based educational system*
1. Select a topic from the curriculum.	1. Select and analyze the standard(s) to be met.
2. Design instructional activities.	2. Design or select an assessment through which students can demonstrate mastery of standards; determine the required performance level, if not given.
3. Design and give an assessment.	3. Identify what students must know or be able to do to perform well on the assessment.
4. Give a grade or feedback.	4. Plan and deliver lessons. Provide *all* students with adequate opportunities to learn and practice the necessary skills or knowledge.
5. Move on to a new topic.	5. Assess students and examine results to plan further instruction or individual support, if needed, and grade their work.

In the same study the Education Trust reports that top-performing, high-poverty schools tend to:

- Increase instructional time in reading and mathematics.
- Devote a larger proportion of funds (than do lower performing schools) to support professional development focused on changing instructional practices.
- Implement comprehensive systems to monitor individual student progress and provide extra support to students as soon as it is needed.
- Involve parents in helping their children meet the standards.
- Have state or district accountability systems that exert real consequences on adults in the schools.

Such changes in education are dramatic at the high school level. They have been compared in magnitude to moving from the one-room schoolhouse to the urban school system.[22] In a traditional education system, "inputs" remained the same while the outcomes for students varied, "mirror[ing] the stratification of society." However, "in the standards model, the outcomes are held steady and the inputs vary."[23] This major shift in the educational philosophy has redefined educational equity from system inputs to system outputs, from student access to student performance. Stanford University professor Linda Darling-Hammond states, "We're trying to get *every* student to meet standards of learning that we once reserved for those who were streamed off into 'the gifted and talented' programs." And she warns, "You can't get there by keeping the same system and trying harder."[24]

Educational Equity and Opportunity to Learn

The concept of the opportunity to learn was first introduced decades ago by the International Association for the Evaluation of Educational Achievement.

Opportunity to learn has been defined in terms of standards, conditions, strategies, and guidelines. Wendy Schwartz, in *Opportunity to Learn Standards: Their Impact on Urban Students*, recommends opportunity-to-learn *strategies* centered on curriculum and instruction, teacher competence, school organization, and ancillary services. [25] Linda Darling-Hammond uses *opportunity to learn* as a broad term that encompasses the following areas:[26]

- Clear, specific standards to guide action, not to restrain teachers
- A curriculum that explores concepts in depth
- Materials supporting teaching for understanding
- Assessments for diagnostic feedback and performance evaluation
- Teacher education programs producing well-prepared classroom leaders
- High-quality, sustained professional development
- Incentives for teacher learning

- Significant extra supports for students
- Longitudinal data systems to track student learning gains
- Redesigned schools

The American Educational Research Association suggests opportunity-to-learn *standards* to address issues of fairness in testing when tests are used for promotion and graduation.[27] The association recommends preparing students for test-taking and providing students with curriculum and instruction, including the appropriate support systems that afford them the opportunity to learn the content and skills that are tested.

A Look Back, A Look Forward

Since the 1850s educators have prepared students for productive participation in the economy and the community. That mission has not changed, but the global economy has. The future labor market demands a more highly educated populace. As State Superintendent of Public Instruction Delaine Eastin has stated, "In the future there will be two kinds of people: those who are highly educated, and those who are barely employable."[28]

Educators have promoted goals and expected levels of achievement for students for more than 150 years. That has not changed, but the shift from a topic-driven to a standards-driven educational system is essential to ensure that all students master the knowledge and skills necessary in the twenty-first century. A standards-based educational system begins with the premise that all children can learn and provides the curriculum and instructional methods to ensure that that happens.[29]

Since the nineteenth century educators have addressed issues of educational equity to ensure that *all* students have the opportunity to learn. That has not changed, but now each and every student needs to master the content knowledge and attain the skills necessary for future success in the workforce and the democracy. As Lauren Resnick points out, "It is not new to include thinking and problem solving in *someone's* curriculum; it is new to include it in *everyone's* curriculum."[30]

The challenges that educators face today are not new. The needs outlined in *Second to None* appear to be as appropriate today as they were in 1992:

> We need to engage our students in a strengthened curriculum; prepare more students for college and . . . technical preparation programs and jobs; develop outcome-based accountability; provide effective support and reduce the dropout rate; establish an environment of professionalism for school faculty; initiate effective parent, business, and community involvement; and make instructional and organizational changes to allow students to reach these higher levels.[11]

The themes of *Second to None* are evident in high schools across the state; schools are focusing on developing powerful teaching and learning, establishing massive accountability systems, and providing comprehensive support for *all* students. To do so they have chosen to restructure and redefine professional roles and to create curricular paths to success.

Yet much has changed since 1992. Participation in California's twenty-first century economy now clearly depends on mastery of rigorous standards. Therefore, California, like the rest of the nation, is concentrating more intense, even laserlike efforts on ensuring that *all* students have the opportunity to master high academic and supplementary standards, including career-technical education standards, that prepare them for success in postsecondary education, careers, and productive citizenship.

Notes

1. Thomas A. Steward, *Intellectual Capital.* New York: Doubleday Publishers, 1997, p. 38.
2. California Economic Strategy Panel, *Collaborating to Compete in the New Economy: An Economic Strategy for California.* Sacramento: Trade and Commerce Agency, 1996.
3. Alan Greenspan, "Job Insecurity and Technology." Address given before the Federal Reserve Bank of Boston's Conference on Technology and Growth, June 1996.
4. Karen Levesque and others, *Vocational Education in the United States: Toward the Year 2000.* Washington, D.C.: U.S. Department of Education, National Center for Educational Statistics, 2000.
5. Joel Kotkin and John M. Olin, *Business Leadership in the New Economy: Southern California at a Crossroads.* Claremont, Calif.: La Jolla Institute, 1998, p. 35.

6. Chris Benner, Bob Brownstein, and Amy B. Dean, *Walking the Lifelong Tightrope: Negotiating Work in the New Economy*. San Jose, Calif.: A joint publication of the Working Partnerships USA and the Economic Policy Institute, 1999. Available on the Web site <*http://www.atwork.org/wp/tig/Tightrope.pdf*>.
7. California Employment Development Department, "California—Occupational Employment Projections, 1998–2008." Available on the Web site <*http://www.calmis.cahwnet.gov/file/occproj/cal$tb6.htm*>.
8. National Alliance of Business, "The Multifaceted Returns to Education," *Workforce Economics Trends*, No. 1 (June 1998), 1.
9. *The Formula for Success: A Business Leader's Guide to Supporting Math and Science Achievement*. Washington, D.C.: Business Coalition for Education Reform, 1999. Available on the Web site <*http://www.bcer.org/timss/*>.
10. Robert C. Fellmeth, "The Road Not Taken: Our Children," *The Sacramento Bee*, October 3, 1999. Forum, 1, 4.
11. Data are available on the Web site <*http://www.npg.org/states/ca.htm*>.
12. "Educational Attainment of the Population 25 Years and Over, by State, Including Confidence Intervals of Estimates." Washington, D.C.: U.S. Census Bureau, 1999. Available on the Web site <*http://www.census.gov/population/socdemo/education/p20-528/tab13.pdf*>.
13. Debra E. Gerald, "Public Elementary and Secondary Enrollment," in *Projections of Education Statistics to 2009*. Washington, D.C.: National Center for Education Statistics, 1998. Available on the Web site <*http://www.nces.ed.gov/*>.
14. *Second to None: A Vision of the New California High School*. Report of the California High School Task Force. Sacramento: California Department of Education, 1992, p. 5.
15. Public Schools Accountability Act of 1999, *Education Code* Section 52050.5(b).
16. James R. Brown, "The Challenge of Change: Reinventing High School." Keynote address given before the Improving America's Schools Conference Institute, Sacramento, California, September 19, 2000.
17. *What Work Requires of Schools: A SCANS Report for America 2000*. Washington, D.C.: The Secretary's Commission on Achieving Necessary Skills (SCANS), U.S. Department of Labor, June 1991. Available on the Web site <*http://wdr.doleta.gov/SCANS/whatwork/whatwork.html*>.
18. *Focus on Learning: Process Guide for Joint WASC Accreditation and CDE Program Quality Review*. Sacramento: California Department of Education, 2001, p. 119.
19. Table 1 is adapted from the work of Kate Jamentz, in *Focus on Learning* (p. 120), and Douglas B. Reeves, *Making Standards Work*. Denver, Colo.: Center for Performance Assessment, 1998.
20. *The High Stakes of High-Stakes Testing*. WestEd Policy Brief. San Francisco: WestEd, 2000.

21. *Dispelling the Myth: High Poverty Schools Exceeding Expectations.* Washington, D.C.: Education Trust, 1999. Available on the Web site <*http://www.edtrust.org/main/reports.asp*>.
22. Linda Darling-Hammond, "Making Relationships Between Standards, Frameworks, Assessment, Evaluation, Instruction, and Accountability," *Restructuring Brief,* No. 21 (November 1999). California Professional Development Consortia. Available on the Web site <*http://www.sonoma.k12.ca.us/Depts/pdc/PDF/brief_21.pdf*>.
23. Ruth Mitchell, "Focusing on Learning: Change Driven by Standards," *Center X Quarterly,* Vol. 7, No. 1 (Fall 1994), quoted in Kate Jamentz, *Standards: From Document to Dialogue.* San Francisco: Western Assessment Collaborative, WestEd, 1998. Available on the Web site <*http://www.wested.org/cs/wew/view/rs/18*>.
24. Darling-Hammond, "Making Relationships."
25. Wendy Schwartz, "Opportunity to Learn Standards: Their Impact on Urban Students," *ERIC Digest* (1995). Available on the Web site <*http://www.ericae.net/db/edo/ED389816.htm*>.
26. Darling-Hammond, "Making Relationships."
27. *Standards for Educational and Psychological Testing.* Washington, D.C.: American Educational Research Association, 1999.
28. Quoted in Patrick A. Ainsworth, "Policy Alternatives for Increasing the Number of California's Graduating High School Students Having the Essential Employability Skills Necessary to Compete in the New Economy." La Verne, Calif.: University of La Verne, 2000 (dissertation).
29. Reeves, *Making Standards Work.*
30. Lauren Resnick, *Education and Learning to Think.* Washington, D.C.: National Academy Press, 1987.
31. *Second to None,* p. 5.

2

Understanding Standards, Assessment, and Accountability

The term *aiming high* looks to the future—reaching beyond past accomplishments. But knowing where to aim requires an understanding of the past and the present.

In the early part of the twentieth century, when railroad travel was the norm in America, the poor side of town was often called "the other side of the tracks" because tracks divided the haves from the have-nots in local communities. Schools perpetuated that divide to meet labor market needs. Schools tended to focus on the 20 percent of students who excelled in academia and who moved into the leadership positions expected of people in their socioeconomic status. At the same time schools were minimally educating the other 80 percent of students who moved into the plethora of blue-collar, farming, or service jobs.[1]

However, the problem of the past is evolving into a crisis of the future. An analysis of California tax returns between 1975 and 1998 provides irrefutable evidence that the income gap between the 20 percent of taxpayers who are the highest wage earners and the 80 percent of the other taxpayers is becoming a chasm. The share of income attributable to the top 20 percent is rising dramatically while the income of the bottom 80 percent is falling almost every year.[2]

Today's global, knowledge-based economy requires nearly all workers to perform at high levels to keep America competitive. Each high school student in California deserves to have access to high-skill, high-wage jobs that facilitate upward mobility in income.

How can high schools contribute to the solution? Research demonstrates that setting high standards and expectations for all students, not just the academically inclined, results in increased performance for all students schoolwide.[3] The research is equally clear that students who are placed in lower academic ability groups almost never advance beyond the remedial level.[4] Standards-based education does not preclude flexibility or flexible grouping for acceleration; it simply ensures that all students are exposed to the same high expectations and rich teaching.

A standards-based educational system must embrace accountability for *all* students. The process provides a seamless educational delivery system built on state and district support to ensure that all students are prepared for postsecondary education and careers and productive citizenship.

Standards, assessment, and accountability are the framework of a standards-based educational system (see Table 2). The standards may be organized into three categories: (1) academic content standards adopted by the State Board of Education (SBE); (2) other standards adopted by SBE, the State Superintendent of Public Instruction, local school districts, or a combination of these; and (3) standards reflected in selected rigorous course examinations. Assessment includes the Standardized Testing and Reporting (STAR) program, the *California High School Exit Examination (CAHSEE), Golden State Examinations, SAT I* and *SAT II, ACT, Assessments in Career Education, Advanced Placement Examinations, International Baccalaureate Examinations,* University of California/California State University placement examinations, *California English-Language Development Test,* and locally adopted measures. Accountability is tied to the Academic Performance Index, and accreditation is awarded through the regional accreditation process.[5]

Table 2 Framework of a Standards-Based Educational System

STANDARDS	*Core academic content standards adopted by the State Board of Education*	*Other content/career standards adopted by the State Board of Education, the State Superintendent of Public Instruction, or local school districts*	*Selected rigorous course examinations reflecting the standards*
	• English–language arts • Mathematics • Science • History–social science	• Visual and performing arts standards • English-language development standards • Foreign language standards • Career-technical education standards • Health and physical education standards • Service-learning standards • Standards embedded in high school course work that meet University of California and California State University subject matter requirements	• *Advanced Placement Examinations* • *International Baccalaureate Examinations* • *SAT I* • *SAT II* • *ACT* • *Golden State Examinations* • *Assessments in Career Education*
ASSESSMENTS	*Standardized Testing and Reporting (STAR) program*	*Other state assessments*	*Local assessments*
	• *Stanford Achievement Test, Ninth Edition, Form T (Stanford 9)* (through 2002) • *Spanish Assessment of Basic Education, Second Edition* • *California Standards Tests*	• *California High School Exit Examination* • *California English-Language Development Test* • *Golden State Examinations* • *Assessments in Career Education* • Voluntary assessments of career-technical standards • State-mandated physical fitness tests	• Local assessments reflecting state-adopted standards and local standards aligned with Expected Schoolwide Learning Results (ESLRs)
ACCOUNTABILITY	*State Academic Performance Index*	*Local Accountability*	
	• Academic Performance Index (API) (Senate Bill 1X). A scale of 1 to 10 (deciles) is designed to rank California K–12 public schools. The legislation states that 60 percent of the API's value shall be based on STAR program test scores and the remaining 40 percent shall come from student and school staff attendance rates and high school graduation rates. (These additional indicators are currently under development.)	• The term of accreditation is awarded through the regional accreditation process.	

Rigorous Standards Tied to High-Stakes Accountability

The State Board of Education has adopted rigorous content standards in the core academic areas of English–language arts, mathematics, history–social science, and science. Most school districts have adopted these academic content standards, which define for each grade level (from kindergarten through grade twelve) what students should know and be able to do in the four academic areas. The standards are available on the California Department of Education (CDE) Web site <*http://www.cde.ca.gov/standards.html*>.

The California content standards are assessed by a number of measures, some of which are high-stakes tests. Some measures represent high stakes for students and schools; some represent high-stakes for schools but not students; and some represent high stakes for students but not schools.

High-stakes tests provide useful information, but no single test can monitor student progress or provide all the information necessary to make decisions on ways in which to improve student learning and school programs. For example, standardized tests are used in the state's accountability system to assess student learning.[6] One type of standardized test is a norm-referenced test.[7] The multiple-choice or selected-response format can be limited in assessing the higher-order cognitive thinking required for college-level work and productive citizenship.

The writing portion of *CAHSEE* includes both selected-response items (e.g., multiple choice) and more constructed-response items (e.g., short answer or essay) that allow students to demonstrate their skills.[8] Nonetheless, schools and teachers also need local-level assessments that employ performance tasks to assess the application of the content standards and engage young minds in the learning process. (See Table 3 for a reference list of the tests used to assess student learning in California.)

Although Table 3 indicates the tests used to assess standards, the question remains, *Which* standards are assessed? This question may seem a puzzling one. After all, if there are standards, are they not all assessed?

Table 3 Tests Used to Assess Student Learning in High School

Mandatory Statewide Assessments

<table>
<tr><td colspan="3">STAR Program (Senate Bill 376). Standardized Testing and Reporting (STAR) requires that students in grades 9 through 11 be tested in reading, writing, mathematics, history–social science, and science.</td><td></td><td></td></tr>
<tr><td>National Standardized Norm-Referenced Test <i>(Stanford 9)</i>υ</td><td><i>Spanish Assessment of Basic Education (SABE/2)</i>υ</td><td><i>California Standards Tests</i>*</td><td><i>California High School Exit Examination (CAHSEE)</i> (Senate Bill 2X)*</td><td><i>California English Language Development Test (CELDT)</i></td></tr>
<tr><td>All public school districts in California are required to test students annually in grades 2–11 in basic skills by using a single standardized test designated by the State Board of Education. The test is to be norm-referenced.</td><td>English learners in grades 2–11 enrolled in school less than 12 months and whose primary language is Spanish are required to complete a primary language test. The <i>SABE/2</i> assessment is a multiple-choice test that allows comparisons with a national sample of Spanish-speaking students in reading, language, and mathematics (grades 2–8 only).</td><td>This is an assessment of student achievement of California content standards in English–language arts, mathematics, history–social science, and science for grades 9–11. Test scores indicate levels of student performance (e.g., Advanced, Proficient, Basic, Below Basic, and Far Below Basic).</td><td>Beginning in 2004, all public high school students must pass <i>CAHSEE</i> to receive a high school diploma. The exam focuses on reading, writing, and mathematics and is based on state academic content standards. English learners may defer the exam for a short period of time.</td><td>All public school districts are required to annually assess the proficiency of English learners in grades 2–12 in listening, speaking, reading, and writing in English. <i>CELDT</i> is not a part of the STAR program.</td></tr>
</table>

Other Assessments and Requirements

*Golden State Examination (GSE)** (Assembly Bills 265, 3488)	*SAT I* and *II* and *ACT*υ	*Advanced Placement (AP)* and *International Baccalaureate (IB)**	University of California/ California State University (UC/CSU) Placement Examinations*	Locally Adopted Measures (e.g., Career-Technical Education, ESLRs, etc.)υ*
This is a voluntary assessment of students' knowledge of subjects and their application of that knowledge. If students attain high honors, honors, or recognition designation on six *GSEs*, they are eligible for the Golden State Seal Merit Diploma.	The College Board publishes *SAT*, the primary college entrance exam in the country; *SAT I* focuses on verbal and mathematics skills and reasoning. *SAT II* provides individual achievement tests in a variety of subject areas. American College Testing publishes *ACT*. This is the other major college entrance examination in the country and focuses on English, math, reading, and science reasoning.	The College Board publishes *AP* exams, individual subject matter tests in more than 30 different fields. The International Baccalaureate Organization publishes the *IB* exams.	UC and CSU students must pass the placement exams in English and/or mathematics or achieve designated scores on *SAT*, *ACT*, *AP*, or *IB*.	Locally adopted measures are established by districts/ schools and go beyond state assessments. They may include demonstration of proficiencies in any of the career-technical education, arts, SCANS skills, or other standards as required for graduation.

Note: Norm-referenced tests are indicated with the icon (υ), and criterion-referenced tests are indicated with an asterisk (*).

If the number of standards was relatively limited, that would certainly be the case. In practice, schools must select which standards to target. Part of that decision will be based on which standards are being tested; therefore, the following section contains a discussion of high-stakes testing (mandatory and voluntary) and possible strategies to identify target standards.

Target standards are those that:

- Include the essential content, ideas, and skills that the school community determines students must master at the benchmarked level.
- Reflect the vertical alignment between the high school and feeder middle schools.
- Are tested in high-stakes, mandatory, and voluntary assessments as determined by a test item analysis where possible. A test item analysis of state-level standards includes the number of test questions related to each standard and the ways in which the standards are assessed.

Mandatory Statewide Assessments

Mandatory tests required by state law serve several purposes. The STAR program, which requires that students in grades nine through eleven be tested in reading, writing, mathematics, history–social science, and science, has three components: the criterion-referenced *California Standards Tests;* a national standardized norm-referenced test, the *Stanford 9;* and a primary language test for English learners whose primary language is Spanish, the *Spanish Assessment of Basic Education, Second Edition (SABE/2).* The latter two tests may change in the future.

Beginning in 2004, all students will need to pass *CAHSEE* to receive a high school diploma. In addition, school districts are required to assess the proficiency of English learners in grades two through twelve by means of the *California English-Language Development Test.*

California Standards Tests

The *California Standards Tests* are aligned directly with the state's academic standards. All four subject areas—English–language arts, mathematics, history–social science, and science—are assessed in grades nine through eleven. The *California Standards Tests* are the state's primary large-scale assessment of standards-based performance in grades two through eleven. The standards selected are specific to the year the examination is administered.[9] All standards will eventually be assessed over a multiyear period. This state-level, summative assessment is designed to provide schools and districts with data for accountability and general planning purposes. Beginning in 2002, the tests will provide information to students about their mastery of the content standards.

Student mastery of the standards is measured against a performance benchmark denoting the degree to which the student has mastered the content. SBE has selected five performance levels—Advanced, Proficient, Basic, Below Basic, and Far Below Basic—to categorize student performance on the *California Standards Tests* and has set Proficient as the target level or benchmark for all students tested.

National Standardized Norm-Referenced Test

The *Stanford 9* is currently the national standardized norm-referenced test selected by SBE to meet a requirement of the STAR program that students in grades two through eleven be tested annually in basic skills.[10] At the high school level, the *Stanford 9* tests reading, writing, mathematics, history–social science, and science in grades nine through eleven. It is not aligned to California's standards.

Primary Language Test for English Learners

The STAR program also requires that English learners in grades two through eleven who are enrolled in California schools less than 12 months and whose primary language is Spanish complete a primary language test. The *Spanish Assessment of Basic Education, Second Edition (SABE/2)*, was adopted by SBE and is currently being used for assessment. The *SABE/2* assessment is a multiple-choice test that allows comparisons with a national sample of Spanish-speaking students in reading, language, and mathematics at the high school level. Other English learners who have been enrolled in California public schools for fewer than 12 months must also take a test in their primary language if one is available. Primary language testing is a district option for students who have been enrolled more than 12 months before testing.

California High School Exit Examination

The *California High School Exit Examination* is a criterion-referenced test that is aligned with selected state standards in English–language arts for grades nine and ten and in mathematics for grade six through algebra 1. To help high schools focus on key standards, Senate Bill 2X (1999) established a panel to delineate the exact mathematics and language arts standards to be addressed in *CAHSEE*. This test "blueprint" and the standards may be viewed on the CDE Web site <*http://www.cde.ca.gov/statetests/cahsee/admin.html*>.

Current law requires that, beginning in 2004, no student will receive a high school diploma without passing both parts of *CAHSEE*. Students who do not pass the exit examination have additional opportunities to take the examination. Students must retake the examination until they pass the English–language arts and the mathematics sections; however, students may retake only those sections not previously passed.

Like the *California Standards Tests, CAHSEE* is also a state test used for making decisions, planning programs, and making schools accountable to the public. The test blueprint can help districts and schools focus instruction on key standards. Schools will need to administer local assessments frequently during the course of a school year to verify student achievement and guide teachers in assisting students in areas of need.

California high schools should focus on the mathematics and language arts standards identified by SBE for *CAHSEE*. It seems only logical to widen this focus to include at least the national norm-referenced test (currently the *Stanford 9*) adopted by SBE and the *California Standards Tests* standards. Only a few standards need to be added to include the *SAT I, ACT,* and *GSE* standards for mathematics and language arts.

Because early student success on *CAHSEE* may reflect preparation in the middle grades, active partnerships between high schools and their feeder middle schools have never been more critical.

California English-Language Development Test

The State Board of Education adopted English-language development standards to assist teachers in determining when English learners have developed fluency in English and proficiency in the California English-language arts content standards. The *California English-Language Development Test (CELDT)* is used to assess the proficiency of English learners in grades two through twelve in listening, speaking, reading, and writing in English. It is not a part of the STAR program; however, districts are required to administer *CELDT* annually to all English learners.

Other Assessments and Requirements

The state academic content standards and other standards are also reflected in tests, such as *SAT* and *ACT,* that have critical outcomes for both students and schools.

SAT and ACT Assessment

Acceptance of students to competitive colleges is partly dependent on *SAT I* scores, and aggregated scores for schools are usually published by the media in comparison with local, state, and national averages. *SAT II,* which includes individual, specific subject matter tests in writing, literature, U.S. history, mathematics, biology, chemistry, physics, French, and Spanish, has equally critical outcomes for students.

Because *SAT* is a high-stakes test, schools may benefit from conducting item analyses of sample tests in relation to the California content standards to help focus the instruction in mathematics and language arts. The College Board provides samples of *SAT* on its Web site <*http://www3.collegeboard.com/satprep/index.jsp*>. *SAT II* samples may be analyzed in relation to standards for higher-level language arts, mathematics, and academic courses.

Another assessment accepted by certain colleges is *ACT.* The *ACT Assessment* is designed to assess high school students' general educational development and their ability to complete college-level work. The tests cover four skill areas: English, mathematics, reading, and science reasoning. *ACT* samples may be viewed on the ACT Web site <*http://www.act.org/aap/testprep/samples.html*>. As with *SAT*, schools may benefit from conducting item analyses of sample tests in relation to the California content standards to help focus instruction in the subject areas tested.

Advanced Placement and International Baccalaureate

Rigorous courses and associated high-stakes tests, such as the *Advanced Placement (AP)* and *International Baccalaureate (IB)* examinations, are significant factors in determining students' competitiveness for college admission. The courses associated with these tests add up to eight "honors grade points" to the calculation of a student's grade point average (GPA.) The GPAs for freshmen admitted for fall 2000 at two campuses of the University of California, Los Angeles and Berkeley, were 4.17 and 4.15, respectively.

Most teachers of AP and IB courses have been specifically trained in both course and examination content. Samples of each *AP* test are available on the College Board Web site <*http://www.collegeboard.org/ap*>, and more study examples and information are available on a related site <*http://www.collegeboard.org/ap/students/prep/index.html*>. The IB courses and exam content are discussed on the International Baccalaureate Organization Web site <*http://www.ibo.org*>.

The *AP* and *IB* exams are already related to specific course work and have clearly delineated performance expectations significantly above those of the state academic content standards. The teachers of these courses are trained in expectations of the exam, and the test makers' curriculum content suggestions are all oriented to the test. In a situation in which the courses were built around the exams initially, item analysis is a moot point.

Golden State Examinations

Like AP and IB course work, the *Golden State Examinations* (*GSEs*) test a variety of academic disciplines. Governor's Scholars who achieve the highest scores on *AP* calculus and science exams or *IB* exams, *or* on selected *GSE* mathematics or science exams where *AP* or *IB* exams are not available, receive scholarships for postsecondary education expenses.[11] The material covered in *GSEs* has been fully aligned with the California content standards. Although no special teacher training is offered, extensive teacher guides delineating the standards tested through *GSE* and sample test items are available on the CDE Web site <*http://www.cde.ca.gov/statetests*>.

Requirements of Public Universities

Applicants to the University of California (UC) must complete a sequence of high school courses known as the *a–g* requirements: history–social science (two years), English (four years), mathematics (three years), a laboratory science (two years), a foreign language (two years), a college prep elective (two years currently; one year beginning in 2003), and visual and performing arts (one year beginning in 2003).

The California State University (CSU) system requires incoming first-year students to complete, with a grade of C or better in each course, the same pattern of study as that of the UC system but with the following exceptions: U.S. history or U.S. history and government (one year) and electives from two academic fields (three years).

About half of the first-year students entering CSU and almost a third of those entering UC are assigned to remedial courses in English or mathematics or both because of their failure on placement tests. To avoid remedial English courses at CSU, students must pass the English placement test or receive a score of 550 on *SAT I* verbal, 660 on *SAT II* writing, or 25 on *ACT* English. To enroll in mathematics courses, they must pass the entry-level mathematics test or receive a score of 560 on *SAT I* or *SAT II* mathematics or a score of 25 on *ACT* mathematics. Students attending a UC campus must pass the Subject A writing examination or submit a score of 3 or higher on the *AP* English examination or 5 or higher on the *IB* Higher Level English A examination. Otherwise they must take a remedial English course. An item analysis is not possible because neither CSU nor UC makes sample placement tests available.

Other Content/Career Standards and Assessments

Core academic standards are the priority, and the reality today is that the high school diploma will be tied to the mastery of these basics. However, to focus only on core academic content standards would shortchange the mission of most high schools in the state: to prepare students to become productive and responsible citizens of the global community.

Offerings such as career-technical education courses and the visual and performing arts can increase both attendance and graduation rates as well as help prepare students for careers.[12] The blending of content/career standards and academic standards has been found to increase student-learning gains on the *Iowa Test of Basic Skills*, a national norm-referenced assessment.[13] In addition, health and physical education standards help to ensure that students are healthy in both mind and body.

Students need time to master academic standards. Integrating academic standards into performance-based, contextually rich classes in the arts and career areas enables students to have multiple opportunities to learn and apply the standards. Students not only can gain more time to master difficult standards but also can transfer their learning across several disciplines.[14]

Career-technical education standards have been developed for grades six through twelve in agriculture, business, industrial technology, health careers, and home economics. These standards are available on the CDE Web site <*http://www.cde.ca.gov/challenge/career.html*>. The five areas are being incorporated into 15 industry sectors that reflect the greatest future employment opportunities in California.[15] Efforts are underway to identify academic content standards in each of these industry sectors to assist schools in offering academic rigor and relevance while preparing students for future employment.

Student achievement of career-technical education standards is measured through *Assessments in Career Education (ACE)*, a system of selected assessments in career-specific course work. The system is parallel to that of *GSE* but focuses on career education disciplines. Like the *GSE*, the use of *ACE* is optional for districts and provides students with notations on transcripts and diploma seals at various levels of mastery. Assessments are currently provided in the Agriculture Core, including agriculture and natural resources sectors; Health Care Core; Technology Core, including energy and utilities, engineering, building trades and construction, manufacturing and product development, and transportation; Computer Science/Information Technology Cluster; and Food Service and Hospitality Cluster, including hospitality, tourism, and recreation.[16]

Local Outcomes and Assessments

Local outcomes and assessments reflect the knowledge, attitudes, and skills that the community wants its graduates to demonstrate. For most California school districts, the state content standards in English–language arts, mathematics, history–social science, and science are the core of their locally adopted curricular standards. Local outcomes include other curricular standards, end-of-course outcomes, graduation requirements set by the school and district, and Expected Schoolwide Learning Results.

A local performance assessment system linked to state standards is an important factor in measuring and reporting student progress. *Taking Center Stage*, the CDE publication on standards-based education in the middle school, provides suggestions on how to align a local performance-standards system with the state system.[17]

Public Accountability

The accountability system in California has three interdependent elements:

- Academic **content standards** in the four core content areas: language arts, mathematics, science, and history–social science
- An **assessment and reporting system** using both a nationally norm-referenced test for national comparison purposes and a criterion-referenced test comparing individual performance to a standard of acceptable performance based on the state's content standards

- The **Academic Performance Index (API)** to determine growth and to be used for conferring awards and identifying schools for an intervention program

The Public Schools Accountability Act (PSAA) of 1999 established the statewide system of accountability. Under PSAA, schools designated as "low performing" (i.e., high need) are invited to participate in the Immediate Intervention/Underperforming Schools Program (II/USP), which provides assistance to schools that fail to meet their API growth targets and have an API below the fiftieth percentile compared with all other high schools. The Act also provides for awards to schools that meet their API growth targets. Information on PSAA, II/USP, and the Governor's Performance Awards may be found on the CDE Web site <*http://www.cde.ca.gov/psaa/*>.

Although to some degree the term of accreditation awarded through the regional process is a highly visible accountability measure for most California high schools, the API is, by far, the most public measure of a school's success to date. The *CAHSEE* student performance data will certainly rival and may surpass the overall API data in visibility and influence on middle grades and high school instruction.

The API is initially based on the results from the *Stanford 9*. See Table 4 for the proposed phasing in of additional components to create a statewide accountability system with multiple measures of standards-aligned student achievement.

Activities Necessary for Standards Achievement

For students to achieve high standards, a concerted effort is required by everyone involved in the education of students. Cornerstone activities to meet high standards are as follows:

1. Provide an understanding of how to align academic content standards with the numerous high-stakes assessments and accountability measures that reflect the broad mission of today's high schools.

Table 4 Tentative Timeline for the Proposed Phase-in of Indicators in the API

Indicators	*1999*	*2000*	*2001*	*2002*	*2003*	*2004*
Stanford 9	X	X	X	X	X	X
California Standards Tests						
English–language arts (grades 2–11)			X	X	X	X
Mathematics (grades 2–11)				X	X	X
History–social science (grades 9–11)				X	X	X
Science (grades 9–11)				X	X	X
Attendance* (Staff and pupil)				X	X	X
Graduation Rate*				X	X	X
California High School Exit Examination						X

Note: All indicators beyond 2001 are tentative until approved by the State Board of Education. Approval may be prior to or later than the date indicated.

*These components are required by legislation once they are determined to be valid, reliable, and available.

2. Identify and implement ways in which to target standards, cluster standards around important concepts, and develop appropriate instruction.
3. Establish vertical alignment of standards between the high school and its feeder middle schools.
4. Provide ample and appropriate high-quality professional development around standards-based instruction with sufficient time for ongoing and targeted staff collaboration.

Notes

1. Ruth Mitchell, "Focusing on Learning: Change Driven by Standards," *Center X Quarterly*, Vol. 7, No. 1 (Fall 1994), quoted in Kate Jamentz, *Standards: From Document to Dialogue*. San Francisco: Western Assessment Collaborative, WestEd, 1998. Available on the Web site *<http://www.wested.org/cs/wew/view/rs/18>*.
2. *California's Changing Income Distribution*. Sacramento, Calif.: Legislative Analyst's Office, August 10, 2000. Available on the Web site *<http://www.lao.ca.gov/0800_inc_dist/0800_income_distribution.html>*.

3. Mary G. Visher and others, *Key High School Reform Strategies: An Overview of Research Findings.* Berkeley: MPR Associates, Inc., 1999. Available on the Web site *<http://www.ed.gov/offices/OVAE/nahs>*.
4. Pedro Noguera, "Developing Systems to Drive Student Success," *Restructuring Brief,* No. 20 (November 1999), p. 1. California Professional Development Consortia. Available on the Web site *<http://www.sonoma.k12.ca.us/Depts/pdc/PDF/brief_20.pdf>*.
5. Accreditation refers to the approval granted to an institution of learning by an official review board after the institution has met specific requirements. In California the Western Association of Schools and Colleges (WASC) accredits most comprehensive high schools. Other accrediting agencies (e.g., Baldridge) also review and bestow accreditation on schools. The California Department of Education and WASC currently share a joint process, documented in *Focus on Learning,* which meets both district and school requirements (*Education Code* Section 64000) and WASC accrediting requirements. Although participation in the accrediting process is voluntary, most schools choose to use the *Focus on Learning* approach as one means of assuring the public that the high school can be trusted to provide a high-quality education.
6. Standardized tests are uniform in content, administration, and scoring and allow the comparison of results across student groups, classrooms, schools, districts, and states. There are two types of standardized tests: norm-referenced and criterion-referenced.
7. Norm-referenced tests are standardized tests that compare individual or group performance to the performance of a larger group. Usually the larger group, or "norm group," is a national sample representing a wide cross-section of students.
8. Criterion-referenced tests are standardized tests that compare individual performance to a standard of acceptable performance.
9. *California Standards Tests* blueprints are available on the Web site *<http://www.cde.ca.gov/statetests/star/s2blueprt.html>*.
10. The legislative basis of the STAR program is Senate Bill 376, Alpert (1997). The bill may be viewed on the Web site *<http://www.leginfo.ca.gov/pub/97-98/bill/sen/sb_0351-0400/sb_376_bill_19971010_chaptered.html>*.
11. The initiating legislation for the Governor's Scholarship Programs is Senate Bill 1688, Polanco (September 2000). The bill may be viewed on the Web site *<http://www.leginfo.ca.gov/pub/99-00/bill/sen/sb_1651-1700/sb_1688_bill_20000912_chaptered.html>*.
12. Kenneth Gray, *Getting Real: Helping Teens Find Their Future.* Thousand Oaks, Calif.: Corwin Press, Inc., 2000, quoting N. Kostelba, "Variables predicting persistence of community college students." University Park: Pennsylvania State University, 1997, p. 7 (dissertation).
13. Fred M. Newmann and others, *Authentic Intellectual Work and Standardized Tests: Conflict or Coexistence?* Consortium on Chicago School Research, 2001, p. 14. Available on the Web site *<http://www.consortium-chicago.org/>*.

14. *How People Learn*. Edited by John D. Bransford, A. Brown, and R. Cocking. Washington, D.C.: National Academy Press, 1999, p. 66.
15. The 15 highest future employment opportunities in industry sectors of California are Agriculture and Natural Resources; Arts, Media, and Entertainment Technology; Building Trades and Construction; Business and Finance; Energy and Utilities; Engineering; Fashion and Interior Design; Health Services; Hospitality, Tourism, and Recreation; Information Technology; Transportation; Manufacturing and Product Development; Public and Private Education Services; Retail and Wholesale Trade; and Public Services.
16. Further information regarding career-technical education assessments is available on the Web site <*http://www.cde.ca.gov/statetests/ace/*>.
17. *Taking Center Stage: A Commitment to Standards-Based Education for California's Middle Grades Students*. Sacramento: California Department of Education, 2001.

3

Creating the Context for Standards-Based Education

Polls show that the general public continues to endorse standards-based education even when there is a lack of unanimity on which standards should be included or how high the performance bar should be set.[1] In fact, 49 of the 50 states have now adopted academic standards. Americans are accustomed to high standards in matters of daily life, such as in the purity of drinking water and the composition of construction materials. These expectations are so ingrained in the social fabric of American life that people feel shortchanged if expectations are not fully met at all times.

Californians are now entering an era in which high standards are expected of public high schools. At the same time research findings show that successful high schools share two characteristics:

- All students are expected to master the same rigorous academic content.
- The curricula are challenging and relevant and cover content in depth.

The call for standards requires educators to create the context for meeting those high expectations.

Creating the School Culture to Support Standards-Based Education

Creating a school culture that supports standards-based education is essential. The responsibility for creating this school culture belongs to every member of the school community under the leadership of site and district administration.

Some general indicators of what a standards-based school culture looks like are noted below:

- *Students* know what standards are, why they are important generically and personally, and which standards will present specific challenges to them. Although standards may not rival Friday night's dance as a lunchroom topic, students can discuss their progress toward mastery and their plans for completion. They know what standards are being targeted by each assessment, and they are aware of what they need to know and be able to do to meet required performance benchmarks.
- *Teachers* refer to the standards targeted for instruction and assessment, and written assignments incorporate these standards. Feedback on assessments is tied to the standards targeted and the performance level required to demonstrate mastery. Grades reflect progress toward mastery. Teachers regularly work together to ensure continuity and alignment in their assessment of standards and interpretation of students' performance.
- *Administrators and counselors* are familiar with the standards, both those expressed as local outcomes and the state content standards—especially those tested in the *California High School Exit Examination* (*CAHSEE)* and the Standardized Testing and Reporting (STAR) program. They can explain the rationale for standards, how standards operate in the school, which standards are addressed in which classes, how the standards relate to high-stakes testing, and how they apply to the multi-option nature of the school's opportunity-to-learn design. They can explain *CAHSEE* target standards (e.g., grade six, Mathematics Standard 1.1: "Compute the mean, median, and mode of data sets"). And, finally, they can provide examples of the mathematics or language arts skills involved at the proficient level.

- *The school environment* reflects the importance of standards and high-stakes assessments. Walls and bulletin boards include displays of student achievement relative to standards. State test scores are posted with goals noted for the next year. Additional local outcomes, including Expected Schoolwide Learning Results (ESLRs), an interdisciplinary statement that embodies the school vision, are found throughout the building; and student mastery is assessed periodically throughout the school year.
- *The district administrators and board members* also understand what the school is doing about standards-based education and why. They have all reviewed the sample *CAHSEE* questions so that they understand the school's challenges. They are proactive in supporting the school's opportunity-to-learn efforts. For example, their speakers' bureau presentations to community groups focus on standards—why we have them, what they are (and are not), how they are assessed, how local students and student subgroups measure up, and what the school is doing to support success for *all* students.

How does a school come up with the ideal standards? There are many paths, but research points to one essential strategy: providing ample and appropriate professional development, with sufficient time for ongoing and targeted staff collaboration.

Providing ample and appropriate professional development is reflected in the following statement: Staff development and planning emphasize student learning and achievement.

The type of professional development required for standards-based education depends entirely on two issues: (1) the readiness of the school to implement this approach; and (2) the types of programmatic and structural changes the school is ready to make to ensure a standards orientation. California high school administrators and staff leadership can begin to address those issues by providing the following resources:

- An overview of standards-based education and how it relates to high stakes assessments, the opportunity-to-learn options, and research-based options for implementation

- An extended, guided planning period to determine the readiness of the school, the best options for implementation, and how and when implementation will take place
- Specific training and guidance in implementing standards-based instruction and assessment and opportunity-to-learn options

Mounting research indicates that an essential factor in ensuring student learning is a well-trained teacher.[2] However, the traditional model for training teachers and upgrading their skills no longer fits most teachers' needs. New professional development models should feature the following approaches:

- Involving teachers in setting objectives
- Assessing teachers' needs and designing development activities that meet them
- Tailoring activities to match the local teaching environment
- Providing continual support[3]

No single model of standards-based professional development is suited for all schools. Opportunities for such development must flow from staff-identified needs to implement staff-endorsed programs to meet school community goals. The California Department of Education resource *Designs for Learning* helps teachers develop and implement a professional development plan that will significantly affect what they do in the classroom and make a difference in their ability to help all students reach high standards.[4] Activities such as those discussed above meet both the guidelines found in *Designs for Learning* and the requirements under California's Instructional Time and Staff Development Reform Program (ITSDR).[5] However, the ITSDR maximum of three paid professional development days will not provide nearly enough time to implement standards-based instruction.

So what is a high school to do? In short, staff *must* find additional time for professional development. The following strategies may help teachers find that time:

- *Coaching,* which fits professional development into "corners" of the existing schedule

- *Augmented professional development days,* which provide more training time
- *Ongoing staff collaboration,* which adds professional development opportunities into the structure of the school week
- *Online professional development,* which offers instruction anytime, anywhere
- *Action research,* which builds staff development into the classrooms and department meetings

These strategies are further described in the following subsections:

Coaching

One option may be to provide continual professional development through the use of a high school coach. California high schools increasingly are using coaches to assist as reform-strategy experts, systems-change facilitators, critical friends, and resource brokers. Depending on the agreed-on role, coaches will provide direct, honest feedback and critiques; share ideas, research, and expertise; and teach and model the skills of data-based inquiry. Good coaches always operate from a theory of action, continually assessing the school from multiple perspectives and asking critical questions to challenge assumptions and expand thinking.

Coaching fits professional development into the nooks and crannies of an existing school schedule. A good coach can work with the principal, the leadership and other school community teams, the whole school staff, the individual departments, and clusters of teachers. A coach can also provide the external expertise to help members of the school community, including parents and school board members, understand the importance of standards-based education, the complexity of its implementation, and the tremendous value of its outcomes.

Finally, coaches promote and support efforts to close the achievement gap for English learners, students living in poverty, and students of color. They understand the changes a district and school must make before all students can achieve equitable learning outcomes. Coaches can be an invaluable addition to the district's and school's efforts to achieve this high-priority goal.

Choosing a coach is like selecting a principal: there must be a balance of attraction and complementary assets. The coach should be someone that all stakeholders rank somewhere between "This is the perfect person" and "I'm not in love, but I can live with this one." She or he must be someone who has a strong history of working in standards-based education and establishing relationships of trust and respect. She or he must clearly possess the ability to work with *all* stakeholders.

Augmented Professional Development Days

Another option is to generate funding to augment the Instructional Time and Staff Development Reform days and then purchase the needed expertise. For example, schools awarded planning or implementation grants under the federal Smaller Learning Communities Program (SLCP), California's Specialized Secondary Program (SSP), or the California Partnership Academies (CPA) may use grant-funded staff development days to implement the parts of standards-based education that focus on personalizing the learning process, such as block scheduling. Federal GEAR UP grants offer a similar opportunity, helping middle and high schools ensure that every student is prepared for postsecondary education.

Detailed information on SLCP is available on the Office of Elementary and Secondary Education Web site <*http://www.ed.gov/offices/OESE/SLCP*>. Information on SSP and CPA is available on the California Department of Education Web sites <*http://www.cde.ca.gov/ssp/*> and <*http://www.cde.ca.gov/partacad*>, respectively. Information on the national GEAR UP is available on the Office of Postsecondary Education Web site <*http://www.ed.gov/offices/OPE/gearup/*>. Information on California GEAR UP is available on the California GEAR UP Web site <*http://www.castategearup.org*>.

Ongoing Staff Collaboration

One need is absolutely clear from the experience of hundreds of high schools initiating standards-based instruction: teachers *must* have significant time for collaboration to implement and maintain a standards-based system. So how does a teacher find that kind of time in schools with a tight budget and faculty already doing extra duty to compensate for the teacher shortage?

Although various solutions have been proposed, only one seems to be universally available and economically feasible in terms of providing the time for collaboration required to institute and maintain a standards-based system. This approach involves manipulating the school schedule to use some of the minutes normally included in the contract workday but not presently used for teaching or other formalized activities.

If a teacher's contract stipulates that the workday is 8 a.m. to 3:15 p.m. (except for a twice-a-month half-hour staff meeting 3:15–3:45 p.m.), classes might normally start at 8:15 a.m. and end at 2:30 p.m. That leaves one hour that is potentially usable each day. For example, say a school has a simple alternate-day block that provides six classes for each student, as in the traditional model. However, there are longer periods and fewer classes per day. The alternate-day schedule runs as follows: Monday and Thursday, periods 1, 3, and 5 meet for 100 minutes; Tuesday and Friday, periods 2, 4, and 6 meet for 115 minutes; and on Wednesday, the traditional schedule with all six periods is followed. If six minutes per day is added to the block classes and classes on Wednesday are shortened to 41 minutes, one hour and 12 minutes of planning time is created on Wednesday morning. This "found time" has been created without losing one instructional minute, without using any precious staff development days, and without violating the contractually defined work hours.

There are many ways to adapt scheduling and, fortunately, no special expertise is required. Some methods include advisory and tutorial periods. A fairly comprehensive set of examples and instructions on "do-it-yourself" schedule building with options is available on the Sonoma State University Web site <*http://www.sonoma.edu/cihs/highschoolreform*>. The examples all include time for teachers to do collaborative planning.

Care must be taken to avoid major pitfalls in implementing time for collaboration. Several California high schools created weekly work time for collaboration only to have it taken away after a year or two because their local school boards perceived that collaboration time had become simply an extra prep period (or worse, that teachers were just showing up late). It is essential for faculty to agree on work products to be produced during the collaboration time and for administrators to identify these products clearly to the district, the board, and the school community at large.

It is also important to guard against subtle—and not so subtle—raids on collaboration time. There is always more work for staff to do than can possibly be accomplished in a high school, and the temptation to use collaboration time to fill these needs can be overwhelming. Every staff member must commit to protecting the time for collaborating on standards-related work.

Online Professional Development

Technology may play an important role in implementing a comprehensive staff development plan that meets the needs of all staff members within the constraints of existing time. Web sites, such as the Teacher Professional Development Institute (TAPPED IN) project, a teacher professional development model, provide education professionals with workshops, mentoring, and the opportunity to share resources and participate in collaborative inquiries with content experts <*http://www.tappedin.org*>. In addition, the National Foundation for the Improvement of Education provides a Web page with links to resources in humanities, social sciences, mathematics, technology, science, and arts education <*http://www.nfie.org/resources.htm*>.

Action Research

Unlike "sit-and-get" training, action research is an effective professional development approach.[6] Teachers support each other's intellectual and pedagogical growth and actively engage in research on teaching and learning. For example, a group of teachers meets regularly to discuss their students' work. Between the meetings they try out pedagogical and curricular ideas from the group. They then report to the group on successes and failures and critically analyze the implementation of the idea. This process not only increases pedagogical content knowledge but also increases teachers' understanding of their subject areas.[7] Most of the professional development is carried out in the classroom and frequently in department meetings.

Creating Vertical Alignment with Feeder Middle Schools

Students do not arrive at the high school from the unknown; most come from feeder middle schools, and these institutions must be looked on as important allies in the standards cause. Research on successful schools indicates that strong partnerships are forged with middle schools as well as with postsecondary education institutions.

One of the advantages of the California content standards is that they span all grade levels, kindergarten through grade twelve, making clear the skills and knowledge covered at each level. More than half of the standards tested on *CAHSEE* are middle school standards.[8] The local standards promulgated by the community also must begin to be addressed in the middle schools to ensure mastery by high school graduation.

Instituting vertical alignment is more challenging than it appears on the surface. Twenty-nine percent of California's high school students are served in 92 high school *districts*, a relatively rare configuration in the U.S.

These high school districts have a total of 572 feeder districts, many with multiple feeder schools. This situation presents unique and significant challenges to articulation and alignment. Rural high schools within unified school districts sometimes face similar problems if they accept students from other kindergarten-through-grade-eight districts. Even in kindergarten-through-grade-twelve unified school districts, middle and high school teachers in the same discipline may never have met, much less had an extended conversation about curriculum, instruction, and assessment. In standards-based education, these conversations must take place for alignment efforts to succeed.

Some of the ways to provide this dialogue are described in the following approaches:

Joint Staff Development Days with Collaboration Time

If high school and feeder middle school districts align the staff development days on their calendars and the schools agree on a common topic (e.g., creating standards-based assessments), professional development workshops may be held jointly. If space permits, faculties can meet in one location; if not, the workshops may be held simultaneously in different locations with groups of middle and high school teachers meeting together or by department.

Additional networking opportunities and collaboration time can be provided after the workshop if the main presentation is planned with time to spare. During this time the joint schools' staffs can plan their overall approach to the crossover standards, assess progress, discuss student outcomes, and so forth.

Joint Committees on Crossover Standards

If middle grades and high school departments plan together to analyze the specified crossover standards, they can develop grade-appropriate assessments and benchmarks to ensure that middle schools are adequately preparing incoming freshmen to pass *CAHSEE*.

Developing crossover standards is not a minor undertaking. In mathematics alone, 42 standards tested on *CAHSEE* are for students in grades six through eight. If the committee took on one standard a week, it would have plenty of work for a year.

Early Identification of Students Having Difficulty with Crossover Standards

The identification of students needing extra help in meeting crossover standards can be highly beneficial to the high school, especially if that identification is completed by the beginning of grade eight. The high school can help the middle grades to initiate interventions even before eighth grade graduation. Those interventions might include tutoring through federal grant programs, such as Talent Search and GEAR UP, or through cross-age tutoring using high school students to work with middle school youths. Talent Search assists young people and adults who have academic potential; it provides counseling and encourages them to graduate from secondary school and enroll in programs of postsecondary education. Additional information on Talent Search is available on the TRIO Web Site *<http://www.ed.gov/offices/OPE/HEP/trio/>*.

As a result of changes to the California *Education Code*, high schools have established supplemental instructional programs[9] for students who:

- Do not demonstrate sufficient progress toward passing *CAHSEE*.
- Have been recommended for retention or who have been retained between middle school and the beginning of high school.[10]

Education Code Section 37252 requires a student who has been retained to participate in supplemental instructional programs.[11]

Some high schools have also established a mandatory summer school for students who fail grade eight. Middle school students rarely fail due to inability to master the material. Instead, failure most often results from the lack of motivation and follow-through. Because of the intense social stigma of repeating grade eight, some students who have failed are suddenly very motivated to tackle standards they may have dismissed in the past, and summer school can become a successful experience.

Development of a Continuum of Learning for Local Outcomes

Academic content is an essential focus for local outcomes. Therefore, the task of developing a continuum of learning for local outcomes must include a focus on academic content. Most of this task may be accomplished by the school district's work on state standards. Middle school teachers may already target other outcomes, including those reflected in ESLRs, such as "The graduate will be able to participate as a contributing member of a group of individuals from diverse backgrounds." ESLRs are often inherent in middle school curriculum and methodology but may not be formally taught or assessed. Alignment with middle schools and common endorsement of the outcomes may significantly ease the high school task of helping students in mastering local outcomes.

Notes

1. "New Survey Challenges Extent of Public Backlash Against State Testing." Washington, D.C.: The Business Roundtable, September 13, 2000 (press release). Available on the Web site <*http://www.brt.org/press.cfm/453*>.
2. Kati Haycock, *Good Teaching Matters: How Well-Qualified Teachers Can Close the Gap.* Washington, D.C.: Education Trust, 1998. Available on the Web site <*http://www.edtrust.org/main/reports.asp*>.

3. Mary G. Visher and others, *Key High School Reform Strategies: An Overview of Research Findings.* Berkeley: MPR Associates, Inc., 1999, pp. 42–43. Available on the Web site <*http://www.ed.gov/offices/OVAE/nahs*>.
4. Information on *Designs for Learning* is on the Web site <*http://www.cde.ca.gov/pd/pdf/designsintro.pdf*>. Materials developed are a part of the California Professional Development Reform Initiative.
5. California's Instructional Time and Staff Development Reform Program, Senate Bill 1193, Chapter 313, Statutes of 1998, *Education Code* sections 44579–44579.4. Senate Bill 1193 is available on the Web site <*http://www.leginfo.ca.gov/pub/97-98/bill/sen/sb_1151-1200/sb_1193_bill_19980819_chaptered.pdf*>.
6. A list of action research links is found on the Web site <*http://www.mcrel.org/resources/links/action.asp*>.
7. A. Feldman, "Teachers Learning from Teachers: Knowledge and Understanding in Collaborative Action Research." Palo Alto: Stanford University, 1993 (dissertation).
8. Blueprints for Language Arts and Mathematics for *California High School Exit Examination.* Available on the Web site <*http://www.cde.ca.gov/statetests/cahsee/admin.html*>.
9. Supplemental instructional programs may be offered during or in a combination of summer school, before school, after school, Saturday, or intersession instruction. Services may not be provided during the student's regular instructional day.
10. The middle to high school transition typically occurs between eighth grade and ninth grade. However, the timing of this transition may vary depending on the grade configuration of the school or school district.
11. *Education Code* Section 37252 states: "Notwithstanding the requirement of this section, the school district or charter school shall provide a mechanism for a parent or guardian to decline to enroll his or her child in the program. Attendance in supplemental instructional programs shall not be compulsory within the meaning of Section 48200." (Sec. 48200 states, in part: "Each person between the ages of 6 and 18 years not exempted under the provisions of this chapter or Chapter 3 . . . is subject to compulsory full-time education.")

4

Implementing Standards-Based Instruction and Assessment

In traditional instruction the teacher chooses a topic, plans and delivers lessons, designs an assessment, assigns grades, and moves to the next topic. By comparison standards-based instruction seems backwards—beginning with a standard and assessment design and moving through the lesson planning and delivery to the analysis of student performance. Indeed, standards-based instruction is sometimes called *backwards mapping* because it does turn the process around to focus on what the student must know and be able to do. This factor, the standard, then drives the instruction.

This chapter examines the steps to be taken in implementing standards-based instruction and assessment for academic content standards. The steps are as follows and are discussed in sequence:

1. Select and analyze the standards to be met.
2. Design or select an assessment through which students can demonstrate mastery of the standards; determine the required performance level if it is not given.
3. Identify what students must know and be able to do to perform well on the assessment.

4. Plan and deliver lessons providing all students with adequate opportunities to learn and practice the necessary skills or knowledge.
5. Examine student work to plan further instruction or individual support, if needed, and to grade the work.

Step 1 Select and analyze the standards to be met.

(a) Select the standards at the school level. Educators should initially concentrate on those state content standards that reflect the big ideas, the "power standards" under which others may be clustered.[1] The standards assessed in the high-stakes *California High School Exit Examination* (*CAHSEE)* and the Standardized Testing and Reporting (STAR) program should be included. For those students taking other high-stakes academic content exams (e.g., *SAT, ACT, Advanced Placement [AP], International Baccalaureate [IB],* and *Golden State Examinations*), the standards related to those tests should also be a focus.

Once the school has agreed on the target standards, the faculty must come to a consensus on the courses in which these standards will be addressed. It is no longer sufficient to consign the teaching of all reading, writing, listening, and speaking responsibilities to the English department or all mathematical analysis and reasoning to the mathematics department. Many California high schools have been teaching reading, writing, and mathematics across the curriculum for years; now doing so is essential.

In a standards-based educational system, however, it is necessary to go beyond merely teaching across the curriculum and pinpoint the classes in which students will be given the opportunity to learn and demonstrate their mastery of specific academic standards. This assignment of standards to particular courses should reflect multiple opportunities to learn as well as opportunities to demonstrate mastery in ways that capitalize on various learning styles.

Reading Standard 2.1 in the *English–Language Arts Content Standards* for grades nine and ten calls for the student to "Analyze the structure and format of functional workplace documents, including the graphics and headers, and explain how the authors use the features to achieve their purposes."[2] This standard may be taught and assessed in a ninth-grade English class by using a universal document, such as a job application or health plan, and perhaps reviewed in a tenth-grade English class. But the standard may also be taught and assessed in various other classes to provide students with multiple opportunities to learn and master the material in different ways. For example, the standard may be taught in the following courses:

- Auto Technology, by using documents on state emission standards
- Chemistry, by using the manufacturer's warnings about given chemical compounds
- Hospitality I, by using Cal/OSHA safety posters
- U.S. History, by using military orders for the invasion at Normandy
- Introduction to Business, by using sample directions for taking inventory

Of course, not all standards lend themselves to teaching outside the primary disciplines. For example, Reading Standard 3.10, "Identify and describe the function of dialogue, scene designs, soliloquies, asides, and character foils in dramatic literature,"[3] will not get much attention outside English, performing arts, and speech classes. But most of *CAHSEE* reading and writing standards and almost all the mathematics standards can be taught both in the primary discipline courses and as applications in various other courses.

Thus, the selection of standards and the courses in which instruction and assessment of those standards will be offered is the first step in the process—and an essential one for a student's opportunity to learn. Offering students multiple opportunities to demonstrate mastery of standards is supported in the research on effective high schools in which multiple forms of assessment are being used.

(b) Select the standards at the course level. Once the faculty has determined the courses in which the selected content standards will be addressed, the teachers of those courses must plan when and how the standards will be taught and assessed. Deciding the sequence of the standards and the method of delivery is the first place in which the difference between

the traditional educational system and standards-based curriculum and instruction becomes evident. The initial step in planning is to select the standard, not the topic (e.g., child labor or DNA) or the materials (e.g., Chapter 3 of the chemistry text or *David Copperfield).*

The teachers of the course also need to agree generally on the order in which standards will be taught and assessed to ensure that students transferring from Ms. Smithson's English 10 to Mr. Jareki's English 10 during the semester do not end up studying half of the targeted standards—twice.

Once the standards and the sequence in which they will be taught are agreed on, the school can publish the standards covered in each class. Counselors then have the information they need to schedule students in ways that maximize the opportunity to learn.

(c) Analyze the standard(s). This important step is too easily skipped over. Yes, all the standards are written in English, but many are subject to considerable interpretation. Faculty involved in teaching or assessing any given standard should agree on what the standard means.

Reading Standard 2.1 appears clear enough initially: "Analyze the structure and format of functional workplace documents, including the graphics and headers, and explain how the authors use the features to achieve their purposes."[4]

However, high school teachers had the following questions concerning the interpretation of Reading Standard 2.1:

- What is the difference between structure and format? What does each mean?
- What is a *functional* workplace document (e.g., is it the opposite of a *dysfunctional* one)?
- Which features should be analyzed: the graphics and headers or structure and format?
- Does this standard also require students to figure out the purpose of the document?

It would be helpful to have the author of the standard sitting at the table to answer these questions and to settle the interpretation, but teachers must arrive at a consensus about the meaning.

Once the meaning of the standard is agreed on, an excellent exercise is to rewrite the standard in student-friendly language. For example, here is how one interdisciplinary group of teachers rewrote Reading Standard 2.1: "Analyze the order and layout of a workplace document (including things like pictures, diagrams, titles, fonts, and how things are arranged on the page) and then explain how the authors used these things to achieve their goals."

Despite differing opinions on how readable the language is to students, this wording passes the basic test for any standard restatement: Does it *miss* or *misstate* any part of the original standard? Once the answer to that question is clearly no, the rewritten standard may be used in communication with students and families.

Many standards-based education researchers have concluded that it is helpful for students to go through a similar exercise themselves so they can "decode" the standards they are about to work on. Douglas Reeves, for example, quotes a third-grade student as interpreting not only a standard regarding legible handwriting but also the rubric level 2, "Progressing toward the standard," as follows: "I get a 2 if I squish my letters like a fuzzy worm."[5]

Step 2 Design or select an assessment through which students can demonstrate mastery of the standards; determine the required performance level if it is not given.

Designing the assessment is undoubtedly the most difficult step in standards-based instruction. Here teachers must create the standard "test" for which instruction will be planned. There is nothing magical about the process, but it does require concentrated thought and collaborative effort. The whole purpose of the instruction designed in step 4 is to enable students to demonstrate mastery of standards through the assessment developed here. In other words the teacher is designing the "test" to teach to, so the "test" should reflect both the current research about how humans learn, retain, and transfer skills and knowledge to new situations and the instructional method.[6]

Despite the difficulties that they present, standards-based assessments are essential. As Douglas Reeves points out, "Expectations alone do not generate fundamental change. Standards without standards-based assessments are merely a very expensive and time-consuming pep talk—one in a string of educational initiatives and innovations that shed more heat than light."[7]

If the STAR program or *CAHSEE* is allowed to determine whether students have mastered the standard, and no assessments are generated on site, two major problems will result:

- Students will not have received additional opportunity to learn selected material because the instructor would have had no reference of the level to which they had or had not mastered standards.
- Students will be deprived of the opportunity to demonstrate their having learned a challenging, in-depth curriculum. Multiple assessments are required to capture a picture of their learning.

(a) Design the assessment. Standards-based education allows for local decision making. Although research indicates that students learn and retain more when instruction is relevant, engaging, and interesting, those attributes are not required in standards-based instruction. Assessments may be simultaneous with or come after instruction. Instruction may target a single standard or several standards at once. Those decisions are best determined by those involved in the instruction and assessment of the standards.

The samples presented below show two very different assessments designed by high school teachers to determine student mastery of Reading Standard 2.1 (restated): "Analyze the order and layout of a workplace document (including pictures, diagrams, titles, fonts, and how things are arranged on the page) and then explain how the authors used these features to achieve their goals." Both assessments will adequately determine a student's mastery of the standard, but they clearly point to two quite disparate approaches to the instruction that will be developed in step 4. In sample A the assessment is designed to take place after instruction; in sample B the assessment is built into the instruction and measures two content standards.

Sample A: Test on Workplace Documents

Examine three workplace documents. Document 1 is an employment application; document 2 is a marketing brochure; and document 3 is a health plan summary. Answer the following questions about each document:

- What is the purpose of this document?
- How do the authors use the pictures, diagrams, titles, and fonts and arrange them on the page to reinforce their purpose?

Sample B: Create Your Own Business Project

As a part of your group project to create your own small business, you will need to produce several documents that serve specific purposes in the workplace. There are two parts to this assignment:

Part I: Analyze actual documents. Get three types of documents (online or hard copy), as indicated below, from real businesses:

- A marketing brochure that describes the services or products of the business and explains the benefits to the customer
- A "how to" guide that explains how to use a product or service
- One other business document of your choice (e.g., an employment application, workplace safety guidelines)

Write a half-page, single-spaced analysis of each document that explains (a) the author's purpose; (b) how the author used the pictures, diagrams, titles, fonts, and format to convey the message; (c) how well you think the author presented the information in a logical sequence; and (d) whether you think the author misled the reader in any way. Attach the analysis to each sample.

> ***Part II: Create your business prototypes.*** For each type of document obtained from a real business and analyzed as directed in Part I, create a prototype or sample for your business that looks like or is better than the professional version. For each prototype, attach a half-page, single-spaced explanation of how you used the pictures, diagrams, titles, fonts, and format to convey the message.
>
> *Note:* In additon to Reading Standard 2.1, this assessment is also based on Reading Standard 2.7, "Make judgments about how well workplace documents inform (or may mislead) the reader by looking at the sequence of information to see if it is logical."

(b) Come to a consensus on the validity of the assessments designed for different courses. Regardless of the methods of assessment teachers may have developed, all must agree that the assessments, as designed, truly measure whether the student has mastered the standard. Having various methods of assessment is a benefit because it accommodates differing student interests, intelligences, and learning styles. However, variation in *what* is being measured or the *benchmark* for mastery is unacceptable; it undermines the equity that is the hallmark of standards-based education—the expectation that *all* students will master the same rigorous standards.

This step simply requires the teachers of all courses in which the standard is to be taught to review all the proposed assessments and answer the question, Does the assessment provide the student a clear opportunity to demonstrate mastery of the standards? If the answer to this question is yes, then the assessment is valid.

In the case of Reading Standard 2.1, teachers look at various assessments, such as samples A and B presented previously, and ask themselves:

- Will this assessment show me whether the student understands the elements of order and layout in a workplace document?
- Will this assessment show me whether the student can evaluate and substantiate his or her judgment of how well the format and the layout are used to achieve a given purpose in a workplace document?

Even though assessment samples A and B are dramatically different, they both meet the criteria noted above. An assessment from another course (e.g., welding) might present an even greater variation yet still meet the criteria.

(c) Design the benchmarks and tools to evaluate the student's response. Without benchmarks or performance standards to determine "how good is good enough," most of the value of standards is lost. The STAR program and *CAHSEE* testing systems set benchmarks, but they are *end* measures, not *progress* measures. Teachers must establish the required performance level on their own assessments (i.e., what level constitutes proficiency) and then document the student's progress toward that level. This step is tantamount to telling students, "You received a C+ on this assessment, but you will not know whether you have mastered this standard until you take the *California High School Exit Examination*."

Clear, thoughtful benchmarks set a bar that tells the student, "You made it! You can perform at the required level for this standard." The benchmark must be high enough to reasonably ensure that the student can demonstrate mastery of this standard on *CAHSEE* or the STAR program but not so high as to require "Exemplary" performance.

Performance standards set a floor, not a ceiling.[8] They raise the bar that *all* students must meet, but they do not limit the performance of high-achieving students. Indeed, they allow high-achieving students to master even more complex material and meet greater challenges. The value of standards is that they:

- Eliminate the need for extensive review, especially at the beginning of courses.
- Ensure that *all* students master key competencies so they are not left with knowledge gaps that require lengthy class explanation.
- Encourage students to expand their reach by giving the parameters of an exemplary performance.

To determine the benchmark or performance standard, one should develop the assessment tool, scoring guide, or rubric first. *Aiming High* is not designed to provide instruction in creating assessment tools, but there are many excellent sources that do.[9] Ultimately, well-written rubrics or scoring guides allow teachers to evaluate student work consistently and allow students to understand exactly how to meet—and even exceed—the standard.

Consider using the following rubric or scoring guide for the first part of the sample B assessment:

Scoring Guide: Create Your Own Business Project

Note: All criteria must be met to earn the level indicated (4 is the highest, 1 is the lowest level).

4—Exemplary

- The documents are valid representations from real businesses of the type of documents required (e.g., a marketing brochure, a "how to" guide, and a business document of choice).
- The analyses are detailed and comprehensive, explaining the purpose of each document, the way the content is arranged, and the way each feature of the document supports the purpose.
- The judgment of how well the authors arranged the content and the features to achieve their purposes is clear and thoroughly substantiated with some examples.
- Advanced work is included (e.g., concrete explanations and examples showing how the documents could be improved).[10]

3—Proficient

- The documents are valid representations from real businesses of the type of documents required (e.g., a marketing brochure, a "how to" guide, and a business document of choice).
- The analyses are detailed and comprehensive, explaining the purpose of the document, the way the content is arranged, and the way each feature of the document supports the purpose.
- The judgment of how well the authors arranged the content and the features to achieve their purposes is clear and thoroughly substantiated.

2—Progressing (or Basic)

- The documents are valid representations from real businesses of the type of documents required (e.g., a marketing brochure, a "how to" guide, and a business document of choice).
- The analyses are not fully comprehensive or detailed; one or more explanations of the purpose, the content order, or the features are missing.
- The judgment of how well the authors arranged the content and the features to achieve their purposes is clear but not thoroughly substantiated.

1—Below Basic

- Not all documents are valid representations from real businesses of the type of documents required (e.g., a marketing brochure, a "how to" guide, and a business document of choice).
- The analyses are incomplete, failing to explain the purpose and key features of the documents.
- The judgment of how well the authors arranged the content and the features to achieve their purposes is unclear and poorly, if at all, substantiated.

The essential questions to ask of this scoring guide are as follows:

- Does the rubric establish proficiency at a level that will allow a student to demonstrate mastery on this standard for *CAHSEE*, the STAR program, or both?
- Does the rubric include in the Proficient level all the key elements of the standard?
- Does the rubric make the assessment of student work very clear to both the student and the teacher?

The teachers who developed this rubric believe the scoring guide meets these criteria.

Ready-made or off-the-shelf scoring rubrics tend to be meaningless in evaluating whether student work meets standards because such rubrics are exactly what they claim to be—generic. They provide students with little to no guidance on performance elements that are required for the specific assessment. Scoring guides are not easy to develop, but they are essential. First efforts should be considered rough drafts that will be revised and perfected. For details on scoring rubrics, visit the Sonoma State University Web site <*http://www.sonoma.edu/cihs/highschoolreform*>.

(d) Come to a consensus on the benchmarks for the various assessments that will constitute a rating of Proficient. In step 2(b), faculty members in the various courses responsible for a specific content standard came to a consensus on the validity of the different assessments they had individually designed. Now the same faculty members must agree on the height of the performance bar for those different assessments.

To reach agreement, the group follows the same procedure as did the single teacher in analyzing the product; that is, the group members assess the rubric by asking the three essential questions noted earlier. Then, as a group, the members help correct the tool as necessary. This process allows all the benchmarks to be aligned at the same level and gives teachers a chance to share and clarify their understandings of the quality of work required. At the end of the process, the school receives:

- Multiple assessments of the standard, which is taught in a variety of classes
- A common benchmark of what constitutes student mastery of the standard

As teachers see actual student work developed for these assessments, they will undoubtedly alter both the assessment and the performance standard to some extent, usually to better define the assessment and to better align it with the standard. This process is normal and a part of continual improvement.

(e) Create samples of Proficient and other levels of student work. A picture speaks a thousand words, and this saying really applies to standards and assessment. Students will perform much closer to the Proficient mark from the beginning if they can see samples of proficient work.

The first time a teacher develops an assessment and benchmark, she or he must create the sample. The teacher knows what student work normally looks like and what it would look like at the Proficient level, so creating a sample is not difficult. After an assessment and accompanying scoring guide have been used for the first time, the teacher will have many real student samples at all levels. These samples let students see in advance work that is Exemplary or Below Basic. Students can compare their work and rating with the samples after the assessment is conducted.

Samples also help families in understanding what is expected of students. One teacher tells of two angry mothers who stormed into her classroom to protest the ratings of Basic on an assessment of their children's work. The teacher listened politely and then reviewed the scoring guide and samples with the parents. She allowed the parents some time to compare their students' work to the guide and samples. Afterward, both mothers apologized and praised the teacher for providing such clear and definitive assessment tools.

Step 3 Identify what students must know and be able to do to perform well on the assessment.

Step 3 is deceptively simple on the surface. Is it not obvious what students must know and be able to do to perform well on the assessment? Is that not the same as for the standard? For the most simple assessments, the answer may be yes; that is, what students must know and be able to do to perform well on the assessment is almost the same as for the standard. But for almost all assessments of high school standards, it is important to delve a bit deeper.

For example, the simple assessment of Reading Standard 2.1 presented previously and referred to as sample A, "Test on Workplace Documents" (see p. 47), called for the student to:

> Examine the three workplace documents and answer the following questions:
>
> 1. What is the purpose of this document?
> 2. How do the authors use the pictures, diagrams, titles, and fonts and arrange them on the page to reinforce their purpose?

High school teachers considering sample A must respond to the question, What does the student need to know and be able to do to perform well? The answer is as follows:

The student must be able to—

- Read and comprehend English at the level of text in the documents.
- Determine an author's purpose from reading the text.
- Interpret correctly the relationship of pictures or other graphics to the purpose of the text.

And must know—

- The definitions of terms, such as *fonts* and *reinforce*
- The factors involved in the logical sequencing of information

What looked simple on the surface, perhaps even a rephrasing of the standard, became significantly more complex when teachers ascertained the skills and knowledge students will need to be successful.

In sample B, "Create Your Own Business Project" (see p. 47), the skills and knowledge asked of students on the assessment are much more extensive. In addition to the requirements stated above:

The student must be able to—

- Communicate orally with business personnel in a clear and mature manner to obtain appropriate workplace documents.
- Plan and organize multilevel tasks over time.
- Use basic software programs to create prototypes.

And must know—

- What the various workplace documents are
- What the purpose of the various documents are so that the student can replicate them
- What the basics of document layout and design are

Step 4 Plan and deliver lessons providing all students with adequate opportunities to learn and practice the necessary skills or knowledge.

Step 4 is familiar ground for teachers: Consider what students must know and be able to do to be successful on the assessment and then teach them those very items.

There are no tricks here. If students need to know the purpose of a "how to" guide and what one looks like, teachers can teach that. If students need to know how to use design software, teachers can teach that (or provide a tutorial in the computer lab so students can teach themselves). And if students need to know how to plan and organize multilevel tasks, teachers can teach that, too. This last type of knowledge or interdisciplinary skill is the focus of local outcomes.

You may well have a situation in which *most* students have mastered a required skill, such as communicating orally with adults to get what they need. Standards-based instruction requires educators to meet the needs of *all* students, including those who did not walk through the door with the requisite skills. These needs may be met either in class while other students are engaged in enrichment activities or through other support, such as a tutorial period or after-school tutoring.

The instruction may be designed as an integral part of the assessment or may precede the assessment. Consider again sample A. The logical progression of events for a teacher using the sample A test might be to:

- Announce the standard being addressed.
- Show students the test.
- Review with the students the scoring guide for the test and a sample of a proficient model.
- Provide the standard, test, scoring guide, and sample to families at the beginning of the unit.
- Deliver the instruction, referring frequently to the test, scoring guide, and model.
- Give the students a pretest to be evaluated in class.
- Administer the final test.

For sample B, the logical progression is significantly different. Here the teacher might:

- Show the students the assessment, which includes the standards to be addressed and a description of the expected performance.
- Review with students the scoring guide and a sample of a proficient model.
- Provide copies of the assessment, scoring guide, and sample to families at the beginning of the unit.
- Provide instruction, perhaps checking students' intermediate progress and understanding.
- Review drafts of student work and compare them to the scoring guide.
- Collect the final assessment.

One interesting aspect of teaching in this system is that the teacher's role is that of a coach who aids students in whatever way possible to ensure their success on the test. A team—teacher and student—is working to make sure the student's performance is at least at the Proficient level. When families are brought into the process, the team is even stronger.

Step 5 Examine student work to plan further instruction or individual support, if needed, and to grade the work.

In traditional instruction, assessment is used to assign grades. Teachers know it, families know it, and students really know it. Even when the teacher spends time reviewing the test in class or makes extended remarks on a final product, most students glance at the grade and then drop any thoughts of or attempts at further follow-up. This reaction is especially true for students who did not perform well. How often have history teachers watched their specific and detailed comments on a term paper go into the trash can, sight unseen, or biology teachers witnessed their thoughtful responses on lab notes filed in the portfolio (as required) but never read?

Student responses to assessments in standards-based education are remarkably different. Although students know that assessment grades count, they are even more aware that they must master the standards to ensure that they are ready for the high-stakes tests—and, in fully standards-based systems, to pass the class. In schools in which students must demonstrate mastery of key standards to pass a given course, the weight of grades is added to that of high-stakes tests to provide even more interest in the assessment results and significantly increase motivation. Therefore, the student is concerned with personal progress at a new level. The student who has a score that is less than Proficient learns to treat returned assessments like gold because they contain feedback that the student needs to work toward proficiency. The student whose score is Proficient or higher carefully keeps the documentation of that proficiency to ensure credit.

Teachers in a standards-based system also use assessments differently and for purposes that go far beyond merely that of assigning a grade. They use assessments to:

- *Improve instruction.* If all the assessment responses are weak in a given area, the teacher knows that the approach to instruction in that area needs to be adjusted. This adjustment may be a matter of additional instruction or a focus on differing learning styles or more intensive coaching with the goal of leaving no student behind.
- *Plan further instruction.* If most students did not score at the Proficient level, additional group instruction is required before the class moves on; the assessment analysis will reveal the key areas for that additional instruction.
- *Improve the assessment, the scoring guide, or both.* The reality of student responses helps teachers in honing the assessment and scoring guides.
- *Diagnose individual learning needs.* The assessment will allow for diagnosis of specific "black holes" of skill or knowledge for each student whose score is less than Proficient. Students and families also know exactly what problems exist as the teacher notes the level of attainment for each item in the rubric (e.g., proficiency in "judgment of how well the authors arranged the content and features to achieve their purpose" but not in basic skills because "analyses are not fully comprehensive or detailed; one or more explanations of purpose, content order, or features are missing").

- *Design an individual action plan.* If most students had a Proficient score, the few who received a score below that need to be provided extra help outside the classroom. The individual skill-need diagnosis enables a teacher to make a thoughtful recommendation for intervention, such as peer tutoring, or in cases of greater need, parallel classes or summer or Saturday school.
- *Generate data for the annual review.* Each year teachers need time for collaboration to review the previous year's record of student mastery of standards, analyze the data disaggregated for major ethnic and racial groups, and make adjustments in the approach for the entire school.

In the traditional classroom the teacher still needs to assign grades, and that raises the question of how—or whether—standards assessments can mesh with teacher grading systems. There are several approaches to this issue:

(a) Teachers may base the student's grade entirely on standards. This approach flows logically from a standards-based education system. Indeed, there are high schools in California today that base grades entirely on the extent to which students have mastered the end-of-course standards or outcomes.

These end-of-course outcomes are "power standards" that synthesize applicable state and local standards or are reflected on *AP* and *IB* examinations so that the number of standards is manageable for assessment.[11] Students are given multiple opportunities to learn and demonstrate mastery of the standards in each course. The grade is then based on the extent to which the student has a Proficient or Exemplary score on the standards.

Translating standards achievement to grades is a matter of either school policy (if the whole school is using standards-based grading) or individual teacher policy. In some schools a Proficient score on all standards equals a B, and students must score at the Exemplary level on a set number of standards to earn an A.

The school also determines whether a student can even pass the course if she or he fails to reach the Proficient level on every end-of-course outcome. If passing is allowed, a certain number of end-of-course outcomes (usually no more than one or two) may be left at the Progressing level and still earn the student a C. If passing is not allowed, a student who has not achieved a Proficient score in all outcomes is usually given an Incomplete, a grade carried for a particular period of time before reverting to an F. During this time students must have access to instruction in the outcomes to be mastered and be given opportunities to demonstrate mastery. This additional opportunity may be provided through Saturday school, a tutorial period, or any of the other parts of the safety net.

Some schools tie honors course designations to standards achievement in regular classes in which the end-of-course outcome assessment always defines Exemplary as completing additional advanced work. This practice certainly increases equity by opening the option to *all* students to tackle honors-level work, and it reduces the scheduling nightmare of having a multitude of singleton honors courses. A tutorial period once or twice a week designated for students taking on the honors challenge can provide additional support for the higher expectations.

(b) Teachers may base a part of the student's grade on mastery of the standards and a part on diligence. In this system faculty members work together to define the factors, other than content mastery, that they think should be reflected in a student's grade. The factors that teachers consider are as follows:

- Timeliness. Students turn in assignments and projects on time.
- Attendance. Students miss no more than 10 percent of class time and show no pattern of tardiness.
- Participation. Students participate in class and in groups responsibly.
- Respect. Students demonstrate respect for one another, the teacher, and the property of others.
- Presentation. Students present work that is neat, legible, and appropriately formatted.

Together, the agreed-on, noncontent factors may be termed *diligence* and reflected in a grade, sometimes based on a traditional point system. This grade is then factored in with the grade from the standards to calculate the course grade. For example, if the school determines that diligence grades should constitute 20 percent of the total, a student with a B+ in mastery of standards and an A+ in diligence might have a final grade of A-.

Some schools have chosen to diminish diligence as a grading factor as students progress through school and take more difficult courses. For example, in classes dominated by freshmen, diligence might account for 40 percent of a student's grade, whereas in AP or primarily senior-level courses, diligence may account for no more than 10 percent of the grade. This practice is a fair approximation of the world of work in which the diligence components are the bottom line for entry-level positions and job retention, but the high-pay, high-skill jobs depend on real work production.

(c) *Teachers may base a part of the student's grade on mastery of the standards and a part on traditional measures.* In this system faculty members determine the percentage of the grade that will be based on traditional measures (e.g., points given for homework completion, test scores, and oral presentations). They also determine the percentage to be based on mastery of standards and diligence, if that measure is included. Then the grade is determined by those percentages.

For example, if a student earns a C in traditional assessment terms, a B in mastery of standards, and an A in diligence and all factors are weighted evenly, that student earns a B for the report card grade. The same final grade would result if mastery of standards constituted 50 percent of the grade and the other two factors each accounted for 25 percent.

(d) Teachers may base student grades on traditional measures but include in the report card levels of mastery of the standards. The significant problem with this approach is that the standards are de-emphasized and relegated to a second-class objective. Students and families are clear that the grades on the report card are based on traditional measures, not on students' mastery of the standards.

The significant problem with this approach from the school's perspective is that it may send mixed messages. If, for example, a student gets a C in a course graded by using traditional measures but is less than proficient in many course standards and fails the *California High School Exit Examination,* can the school argue that the student and his or her family were given a clear indication of the student's failure to master the standards?

Notes

1. *Taking Center Stage: A Commitment to Standards-Based Education for California's Middle Grades Students.* Sacramento: California Department of Education, 2001, p. 24.
2. *English–Language Arts Content Standards for California Public Schools, Kindergarten Through Grade Twelve.* Sacramento: California Department of Education, 1998, p. 56.
3. Ibid., p. 58.
4. Ibid., p. 56.
5. Douglas B. Reeves, *Making Standards Work.* Denver, Colo.: Center for Performance Assessment, 1998, p. 50.
6. Renate Nummela Caine and Geoffrey Caine, *Making Connections: Teaching and the Human Brain.* Old Tappan, N. J.: Addison-Wesley Longman, Inc., 1994, pp. 164–66.
7. Reeves, *Making Standards Work,* p. 35.
8. J. S. Kendall and R. J. Marzano, *The Systemic Identification and Articulation of Content Standards and Benchmarks: Update.* Aurora, Colo.: Mid-continent Research for Education and Learning, 1995, pp. 13–14.
9. See, for example, Chicago Public Schools' Instructional Intranet, Assessments Web site <*http://intranet.cps.k12.il.us/Assessments/*>.
10. Reeves, *Making Standards Work,* 194.
11. Ibid.

5

Initiating Instruction and Assessment of Local Outcomes

Outcomes at the local level represent a spectrum of knowledge, attitudes, and skills that the community wants graduates to demonstrate.

Types of Local Outcomes

There are four basic types:

- Curricular standards, including the state academic content standards
- End-of-course outcomes for all courses, reflecting what students should know and be able to do after completion of each course
- Graduation requirements set by the school and district, including Carnegie course units, activity completion (e.g., service-learning and community service), and skill demonstrations
- Expected Schoolwide Learning Results (ESLRs), which are interdisciplinary statements that embody the school vision, are integral to the school's improvement process, and usually are adopted at the site level

Each type of outcome is described below:

Curricular Standards

Almost all California school districts have adopted the state academic core content standards, and many districts have also endorsed the adopted or recommended state standards in the areas of visual and performing arts, career-technical education, service-learning, and physical education. Some districts and schools have adopted additional curricular standards beyond those suggested by the state.

End-of-Course Outcomes

End-of-course outcomes are a short list (usually no more than a dozen) of big ideas and skills students will understand or be able to demonstrate by the end of a given class. Sometimes the outcomes are guidelines or recommendations, but an increasing number of schools are requiring the demonstration of mastery of end-of-course outcomes in whole or in part to pass the course. Such demonstration is typically developed at the site, but it could be based on scores from a *Golden State Examination* or an *Advanced Placement (AP)* or *International Baccalaureate (IB)* test. The advantages of end-of-course outcomes for tracking student learning are as follows:

- *Consistent opportunity to learn.* Students are exposed to the same standards, instruction, and assessment in each section of, for example, biology or English II, thus establishing a consistent opportunity for knowledge and skill acquisition.
- *Consistent expectations.* Students know from the beginning of the course exactly what they need to know and at what level they must demonstrate mastery to pass the course.
- *Consistent grading.* If grades are tied to mastery, level of progress, or both, the expectations are even more clearly spelled out, and grading tends to become much more consistent between teachers (e.g., to pass the course, you must have a Proficient or Exemplary score in outcomes one through six and at least a Basic score in outcomes seven through ten).
- *Consistent and appropriate summer instruction.* Using end-of-course outcomes allows summer school and other supplemental instruction to target individual student needs in a general class or to create different classes for different outcomes.

Graduation Requirements

To receive a high school diploma, students must fulfill state and district course requirements. State-mandated minimum graduation requirements consist of three years of English, two years of mathematics, three years of social science, two years of science, two years of physical education, and one year of foreign language or visual and performing arts. California law details the minimum course requirements that a student must complete while in grades nine to twelve to receive a diploma of graduation.[1]

School districts may add Carnegie units (i.e., credits representing the completion of a core of high school courses) to the state-mandated minimum graduation requirements. These additions most often reflect course requirements to graduate, such as a third year of mathematics, a laboratory science, or a vocational or technical education course. They may also include activities, such as a given number of hours devoted to community service or service-learning. Many districts require a culminating product or project, such as an employability portfolio, a senior project, or a senior exhibition. A fourth type of requirement is a demonstration of skills, such as water survival skills or technology literacy at a given benchmark level.

Expected Schoolwide Learning Results

ESLRs are the measurable, interdisciplinary, succinct expressions of what the school community wants *all* students to know, understand, and be able to do by graduation. ESLRs generally include some or all of the items discussed earlier and are an important part of local outcomes.

Frequently, a school's ESLRs mirror the report of the Secretary's Commission on Achieving Necessary Skills, *What Work Requires of Schools: A SCANS Report for America 2000.*[2] Although the document was written in 1991, it is still visionary. SCANS recommends five competencies:

- Resources: Identifies, organizes, plans, and allocates resources . . .
- Interpersonal: Works with others . . .
- Information: Acquires and uses information . . .
- Systems: Understands complex interrelationships . . .
- Technology: Works with a variety of technologies . . .

SCANS' three-part foundation calls for *basic skills,* higher-order *thinking skills,* and diligent application of *personal qualities.*

Approaches to learning reflected in the ESLRs typically include problem solving, critical thinking, goal setting, creative thinking, and so forth.

Typical ESLRs call for students to participate as a team member by working well with others from diverse backgrounds or to select activities leading to a goal, plan a timeline, and complete the activities. ESLRs may also relate to values, attitudes, and personal traits, such as the ability to resolve conflicts, exhibit self-motivation and self-discipline, accept responsibility, demonstrate understanding and empathy, practice self-control, maintain appropriate hygiene, choose ethical courses of action, and demonstrate politeness. There is nothing wrong with including personal traits in ESLRs. Whatever the school community determines should be in the profile of the graduate is what is right for that site. These ESLRs are, in the clearest sense, *locally* determined outcomes.

Many other sources offer advice on what should be included in local outcomes. For example, see the National Association of Secondary School Principals' *Breaking Ranks*[3] or the *National Standards for School Counseling Programs*.[4]

Creating the Context for Implementation of the Local Outcomes

The context for standards-based education needs to be established at the same time that the local outcomes are identified. The outcomes should be prominently featured in professional development, and sufficient time for ongoing and targeted staff collaboration should be scheduled. Professional development and collaborative planning should include objectives and timelines for local outcomes. High schools should work with feeder middle schools to achieve vertical alignment in the instruction and assessment of local outcomes and in the crossover academic standards. Finally, local outcomes should be reflected along with state standards in the site plan for creating a new standards-based educational system.

Local outcomes may receive substantial attention if the high school diploma is issued with an accompanying document akin to a graduate guarantee. This letter formally explains the school's local outcomes and certifies that the student has met all the standards through a rigorous program of demonstrated performance. The guarantee becomes part of the student's high school transcript, and the graduate can use it as a reference in the workforce or postsecondary education and in training applications.

Developing the Educational System for Local Outcomes

The process for developing a standards-based instructional system for local outcomes is similar to the process required to implement academic standards, and the steps are as follows:

1. Select and analyze the outcomes to be met. Identify appropriate academic standards or existing accountability measures through which local outcomes can be measured, wherever possible.
2. Design or select an assessment through which students can demonstrate mastery of the outcomes; determine the required performance level if it is not given.
3. Identify what students must know and be able to do to perform well on the assessment.
4. Plan and deliver lessons providing all students with adequate opportunities to learn and practice the necessary skills or knowledge.
5. Examine student assessment responses to plan further instruction or individual support, if needed, and to grade the work.

Step 1 Select and analyze the outcomes to be met. Identify appropriate academic standards or existing accountability measures through which local outcomes can be measured, wherever possible.

(a) Select the outcomes. Selecting local outcomes is easier than selecting state standards. The teacher has already selected end-of-course outcomes, and other local outcomes probably have standards and accountability measures in place. Schools that require service-learning, senior projects, or demonstrations of skills typically have outcomes for courses offered.

Even selecting ESLRs is simplified by the fact that *Focus on Learning*, an ongoing school improvement process, calls for only two to three ESLRs to be targeted each year.[5] Many ESLRs can be measured through the academic content standards or existing accountability structures. An ESLR calling for students to be skilled and capable communicators is easily measured through the state language arts standards, and an expectation that students be contributors to their community is met through the requirement for community service or service-learning.

Additional ESLRs will be evaluated in subsequent years, and the action plan must describe this process. The initial ESLRs selected should be those that are most pertinent to student achievement needs.

(b) Analyze the standards. If local outcomes cannot be measured by state academic standards or existing accountability measures, *analyzing* may mean clarifying and completely rewriting the outcome. The school or district controls the wording and content of local outcomes and can craft the language accordingly. However, the language must be wholly aligned with the assessments selected, so it is best to rewrite the outcome, as needed, at the same time that step 2 takes place.

Step 2 Design or select an assessment through which students can demonstrate mastery of the outcomes; determine the required performance level if it is not given.

Most outcomes can be assessed with existing accountability measures or assessments designed for state academic standards. For the balance, as for the academic content standards, designing the assessment and determining the performance level for mastery are essential steps that may help define the scope and nature of what might otherwise be relatively vague statements.

A typical school ESLR dealing with approaches to learning may serve as an example: "An XYZ high school graduate will participate as a member of a team, working well with men and women from diverse backgrounds." Although almost everyone would agree that the goal is laudable, the major question is, How will students demonstrate mastery? And here the answers must be carefully considered.

(a) Determine what being a member of a team means. First, one must determine the purpose of the team—to win a chess tournament, to produce a product, or to provide support for one another during a difficult period. This determination dictates the team member's responsibilities; for example, to win at all costs, to take orders and execute them well, to contribute as an equal leader-partner. The skills needed to carry out the responsibilities are what must be taught and assessed.

(b) Set the benchmarks and identify the assessment tools for measuring team members' skills. Second, one must determine "how good is good enough" and what kind of tool or instrument is needed to measure skills. For example, some educators might feel that the only people who can determine whether someone is working well with men and women from diverse backgrounds are the men and women themselves. In that case a peer evaluation form might be the primary instrument, with directions asking students to evaluate each team member's contribution to the final product, including their own, and to explain their reasoning.

Another way to judge "how good is good enough" in this example is to use a teacher observation rubric. The teacher sits in on group discussions, decision making, and plan implementation and constantly rates students on their participation as group members and their demonstration of the skills they have learned.

An example of a different kind of ESLR is based on the SCANS thinking skill: The XYZ graduate will use logical reasoning resulting in successful problem solving. Students are too often *expected* to use reasoning in solving problems but may never have been *taught* how to do so. This ESLR may be best taught and assessed through the state academic content standards. For example, two assessments designed for Reading Standard 2.1—one straightforward, end-of-unit test and one project-based assessment—may easily and successfully incorporate the ESLR pertaining to reasoning and problem solving as shown in the text underlined in the samples that follow:

Sample A: Test on Workplace Documents

Examine three workplace documents. Document 1 is an employment application; document 2 is a marketing brochure; and document 3 is a health plan summary. Answer the following questions about each document:

- What is the purpose of this document?
- How do the authors use the pictures, diagrams, titles, and fonts and arrange them on the page to reinforce their purpose?
- If you were the author of the document, how would you have presented the material differently to better achieve the purpose? Explain your reasoning.

Sample B: Create Your Own Business Project

Part I: Analyze actual documents. Get three types of documents (online or hard copy), as indicated below, from real businesses:

- A marketing brochure that describes the services or products of a business and explains the benefits to the customer
- A "how to" guide that explains how to use a product or service
- One other business document of your choice (e.g., employment application, workplace safety guidelines)

Write a half-page (single-spaced) analysis of each that explains (a) the author's purpose; (b) how the author used the pictures, diagrams, titles, fonts, and format to convey the message; (c) how well you think the author presented the information in a logical sequence; and (d) whether you think the author misled the reader in any way. Attach each sample to its analysis. Explain your reasoning.

Part II: Create your business prototypes. For each type of document obtained from a real business and analyzed as directed above, create a prototype or sample for your business that looks like (or is better than) the professional version. For each prototype, attach a half-page (single-space) explanation of how you used pictures, diagrams, titles, fonts, and format to convey the message.

Explain how your choices achieve the purpose of the document.

In these two samples an assessment of the thinking skills ESLR is incorporated into the assessment of the academic content standard.

(c) Determine at what point local outcomes will be taught and assessed. Several options are discussed below:

OFFER ONE ASSIGNMENT OR TASK THAT WILL ALLOW STUDENTS TO DEMONSTRATE MASTERY. This approach is definitely the easiest. To use this option with a community service or service-learning outcome, for example, the faculty first determines the courses in which all students already have an assignment or task that may fit the requirement. For example, if all students do a service-learning project in the required health education course, this activity will deliver the local outcome required for graduation with only minor adjustments in scope and the addition of a reflective writing assignment. The English faculty agrees to integrate the reflective writing into its instruction for and assessment of the personal essay. The health education faculty makes the needed adjustments in its assignment and assessment.

OFFER MORE THAN ONE ASSIGNMENT OR TASK THAT WILL ALLOW STUDENTS TO DEMONSTRATE MASTERY. This scenario is more complex but offers students greater opportunities to learn and demonstrate mastery. Using the teamwork example, faculty members consider the courses in which students already have potential assignments and discover that major team projects exist in physics, English 9, automotive technology, dance, economics, and geometry. The teachers of these subjects meet together to determine the common elements that constitute a consensus of what it means to be a group member. Teachers for each course develop a rubric and an assessment. The groups then meet to compare and align the rubrics and assessments.

HAVE THE STUDENT CHOOSE HOW TO DEMONSTRATE MASTERY. This option is the most difficult one for the school, but it places the greatest responsibility on the student. Again, using the teamwork example, the faculty would carefully delineate the conditions that must exist for the group's work to meet the school requirement. Then the student would be responsible for analyzing the assignments provided in various classes and for persuading the teacher to use a particular teamwork assignment to judge his or her performance.

(d) Create samples of the Proficient level. Using the example above, students in the English 9 classes create videos of team group meetings deemed Proficient, and the faculty chooses the video that best embodies its rubric. That video may then be used in all classes that teach and assess the teamwork ESLR. Alternatively, the faculty might create a video of various team members modeling the levels Exemplary, Proficient, Basic, and Less Than Basic.

Step 3 Identify what students must know and be able to do to perform well on the assessment.

An example of a teamwork outcome that uses a teacher observation rubric might call for the following actions by the student:

- Uses techniques of active listening and offers responses that consider others' comments
- Participates appropriately, neither monopolizing the conversation nor remaining silent
- Helps move the discussion to action at appropriate times
- Works to have the group come to agreement
- Shows respect to group members

Teachers analyzing this assessment determined that students would have to know:

- The components of active listening
- How much participation is appropriate
- What students from various cultural backgrounds view as respect and disrespect

Teachers believed that students would also need to be able to:

- Practice active listening.
- Move the discussion to action.
- Determine when the group should stop talking and get moving—or stop doing things and take time for discussion.
- Help keep a group on task when it begins to wander.

To address the ESLR on reasoning embedded in the teamwork outcome example, students would need to have a basic understanding of metacognition (i.e., how human beings reason). They then must be able to track their own reasoning in determining how to solve the problem of creating a business document that serves a specific purpose.

Step 4 Plan and deliver lessons providing all students with adequate opportunities to learn and practice the necessary skills or knowledge.

The list in step 3 of what students need to know and be able to do raises an interesting question: Is it the job of the earth science or nutrition teacher to provide instruction in active listening and how to move a group to action? Is the business or government teacher now an instructor in metacognition?

The answer is yes, definitely, if earth sciences, nutrition, business, or government are courses that the faculty has identified as an instruction or assessment point for the local outcome and if the faculty has agreed to use the assessment instruments. It may seem strange initially to have the physical education teacher coaching students in how to solicit the ideas of all team participants or to have the science teacher instructing students in reasoning during chemistry. However, the feeling of strangeness arises only because teachers in the past have *assumed* students possessed these types of skills although no overt *teaching* of these skills took place.

Teachers incorporate teamwork and problem solving in their assignments all the time, but who takes the responsibility for teaching group dynamics or metacognition?[36] Teachers using materials steeped in mathematical reasoning often find the most challenging teaching is in the thought process, not the algorithms.

Some students seem to have innate teamwork skills. Those students know exactly how to function as group members or how to trace their reasoning processes. In a standards-based system, however, teachers are responsible for ensuring that *all* students have opportunities to learn and practice the necessary skills and knowledge. Teachers cannot ignore the teaching of local outcomes.

Once the outcome and assessment instruments are adopted, all teachers assigning group work should review the expectations of team members to reinforce the learning throughout the curriculum. And all teachers should consider including such directions as "Explain your reasoning" to remind students of logical reasoning patterns.

The process is not easy. Teachers may have worked in teams for years without ever overtly defining those qualities that make a team process work well, and many may have been out of school long before the concept of metacognition ever made it past philosophy courses. Defining what the outcomes require teachers to teach and then learning how to teach those skills may well prove challenging.

Step 5 Examine student assessment responses to plan further instruction or individual support, if needed, and to grade the work.

This step is exactly the same for local outcomes as it is for academic content standards—and probably a lot easier. A teacher is apt to have opportunities in every unit to teach and reteach local outcomes, such as teamwork or the use of reasoning to solve problems. The same teacher may find it more difficult to fit in reteaching students to solve a system of two linear equations in two variables algebraically and interpret the answer graphically.

An interesting issue raised by local outcome assessments, not unlike assessments of academic content standards, is how they relate to student grades. The responses will vary significantly from school to school, but noted below are some options to consider. In all options the school would report student progress on the local outcomes along with progress on academic standards.

Local outcomes have no bearing on student grades but are required for graduation. In this system local outcomes are taught, assessed, tracked, and reported on the locally developed Standards Achievement Report issued with the report card. Students have multiple opportunities to demonstrate mastery in various classes. A mastery checklist of competencies is maintained in the student Graduation Career and Academic Plan (CAP), but local outcomes have no bearing on grades.

The advantages of this system are that it bypasses the issue of assigning grades, and it calls for local outcomes to be taught across the curriculum even though they may be targeted in some classes. The disadvantages are that students have a tendency to discount any activity not in the grade stream (e.g., "Is this stuff going to be on the test?") and local outcomes may be more difficult to track. It may also be difficult to motivate students to complete a list of complex tasks to achieve something they perceive to be in the distant future.

However, this system works well if the staff stresses local outcomes as graduation requirements. When mastery of local outcomes is featured side by side with mastery of academic content standards on assignments, as well as on posters and report cards, students and their families will get the message. The big change in standards-based education is in moving students from seat time and giving them rewards for trying hard to giving them rewards for mastery; getting students and families to accept local outcomes with academic standards is a relatively minor adjustment by comparison.

Local outcomes are considered in the diligence part of the student's grade. Because some local outcomes address approaches to learning, they can be considered a major component of diligence if that grading method is used. The advantages of this approach are that the local outcomes are easier to track and assessment is controlled and focused in a few classes or activities. The disadvantage is that the weighting may unbalance the relationship the school has worked to achieve between state standards and local outcomes.

Local outcomes are a separate part of the student's grade in the classes teaching targeted standards. In this system a local outcome is assigned to a specific course or several courses. After the outcome is taught and until a student demonstrates mastery, the outcome is assigned as a separate part of the student's grade. The advantage of this system is that it works like the first option, but the outcome is easier to track because the local outcomes are assigned to particular classes. The significant emphasis on mastery should also catch the students' attention. Although ESLRs are schoolwide, they are emphasized more in a specific course or several courses than in other areas. This system should be compatible with assessing ESLRs.

The process described in *Focus on Learning* asks a school to analyze its student community profile for student achievement; select two or three ESLRs based on those data; design a collection strategy using the two or three ESLRs and academic standards; and use the resulting data to analyze the quality of the school program by comparing it with the criteria in *Focus on Learning*.

The basic concepts regarding student achievement are expected to remain the same in future editions of *Focus on Learning*. However, there will be a heavy emphasis on schools' identifying two or three critical academic needs based on the analyzed information and modifying the ESLRs if they do not correspond to the needs.

The data collection strategy will focus on evaluating student work and other evidence of identified needs, the academic standards, and ESLRs. Then the school will use the information to analyze the quality of its program according to the WASC/CDE criteria.

The resulting synthesis of information on the ESLRs, related academic standards, and the WASC/CDE criteria will help the school determine needs and next steps. Finally, the school will revise its comprehensive schoolwide action plan by defining its growth targets and establish an ongoing follow-up process to monitor the plan's implementation.

Schools involved in the *Focus on Learning* process are already conducting data analysis and synthesis as a part of the continual improvement process. This assessment of progress is always done with evidence that students are accomplishing the ESLRs and the academic standards. In this assessment process the complementary relationship between ESLRs and the academic standards is evident: the ESLRs stress attainment of the academic standards. Comments from principals whose schools have recently conducted the *Focus on Learning* process frequently state that the process validates what exists and formalizes the improvement process based on standards and ESLRs.

Notes

1. California *Education Code* Section 51225.3. Available on the Web site <*http://www.leginfo.ca.gov/calaw.html*>
2. *What Work Requires of Schools: A SCANS Report for America 2000.* Washington, D.C.: The Secretary's Commission on Achieving Necessary Skills (SCANS), U.S. Department of Labor, June 1991. Available on the Web site <*http://wdr.doleta.gov/SCANS/whatwork/whatwork.html*>.
3. *Breaking Ranks: Changing an American Institution.* Reston, Va.: National Association of Secondary School Principals, 1996. A report of the National Association of Secondary School Principals on the high school of the twenty-first century.
4. To order a copy of the document, contact the National Standards for School Counseling Programs, 1801 North Fairfax Street, Suite 310, Alexandria, VA 22314; telephone (800) 306-4722. Available on the Web site <*http://www.schoolcounselor.org*>.
5. *Focus on Learning: Process Guide for Joint WASC Accreditation and CDE Program Quality Review.* Sacramento: California Department of Education, 2001.
6. Thomas R. Harvey and Bonita Drolet, *Building Teams, Building People.* Lancaster, Pa.: Technomic Publications, 1994. Synthesizes the research on effective team characteristics.

6

Supporting Student Academic Success

Raising expectations and standards for *all* students requires more than rhetoric; significant curricular and structural supports must be provided for students to succeed. Schools and teachers who provide such supports demonstrate their commitment to giving all students the opportunity to learn.

The Need for Academic Supports

Many students face barriers to academic success: poor attendance, pregnancy and parenting, alcohol or drug abuse, disengagement, employment, family obligations, cultural barriers, and foster care status. Teenagers may need special services if academic interventions are to be successful. Programs, policies, and resources that specifically address those barriers are found at the district level and on the California Department of Education Web site <*http://www.cde.ca.gov/cyfsbranch/*>.

Aiming High does not attempt to provide guidelines for overcoming those types of barriers; rather, it focuses on the structures and conditions in the school environment that support academic achievement *and* provide students with a sense of engagement, belonging, connection, and empowerment. This environmental approach is supported in the literature under models of adolescent development: asset development,[1] resiliency,[2] and youth development.[3] Research clearly corroborates the need for creating a school environment that provides students with extra support.

Forms of Academic Supports

Academic supports for standards-based education may be provided as supplemental instruction that occurs outside the school day or year and may be complemented by instructional support during the regular school day. Under *Education Code* Section 37252, school districts must provide supplemental instruction for students in grades seven through twelve who do not demonstrate sufficient progress toward passing the *California High School Exit Examination (CAHSEE).* The supplemental programs must be scheduled outside the regular school day, during the summer, before or after school, on Saturday, or during intersession so that students are provided additional opportunities to master standards. Through adjustments in the infrastructure, the supports during the regular school day complement those offered through supplemental instruction. Some options during and outside the school day or year are discussed below. The district and school should provide ample and appropriate professional development and support to ensure the tutorial program's effectiveness.

Establishing Tutorials

Many California high schools are adopting the prep school model of including tutorials within the school day. The term *tutorial* is not to be confused with traditional one-on-one tutoring. A tutorial is a staff-led, small-group coaching session held for students every day or several times a week that focuses on specific standards prominent in the test blueprints. Although tutorials may be implemented in different ways, the approach described below specifically correlates with standards-based systems.

Tutorial focus. Teachers analyze the school's data from the Standardized Testing and Reporting (STAR) program, *CAHSEE,* and other sources to select the standards for tutorial support. For example, if a high school scored 10 points below the state average on STAR mathematics assessments, the faculty may note that students did poorly in both the STAR program and *CAHSEE* on Number Sense Standard 1.2 (grade seven): "Add, subtract, multiply, and divide rational numbers (integers, fractions, and terminating decimals) and take positive rational numbers to whole-number powers."[4]

The faculty decides to focus several tutorial sections on this standard, perhaps dividing small groups into learning centers (e.g., multiplying decimals, dividing fractions, adding or subtracting whole numbers). Students are given a very brief, STAR-type screening test on this standard; those students needing help are scheduled for the tutorial groups along with others referred by their teachers.

Some particularly difficult standards reflected in the STAR program and *CAHSEE* may be a tutorial focus for many students, especially those in grades nine and ten. For example, Reading Standard 3.11 calls for students to "evaluate the aesthetic qualities of style, including the impact of diction and figurative language on tone, mood, and theme, using the terminology of literary criticism (Aesthetic approach)."[5] A majority of students may need tutoring in mastering a complex standard such as this one.

The faculty may want to limit the number of standards for tutorial focus each year to make feasible the planning and acquisition of materials. The number of standards chosen and the number of tutorial sections per standard will depend on the school's size and the students' needs.

Tutorial leaders. If all teachers are assigned a tutorial section, a wider range of topics and smaller sections may be offered. Because the focus of tutorials will be primarily mathematics and language arts standards, teachers in other disciplines (e.g., career-technical education, the arts, foreign languages, physical education, science, and social sciences) will need to apply their subject area knowledge to the key mathematics and language arts standards being targeted. Or teachers may offer tutorials for students who do not need work on the targeted standards. These options might include honors or Advanced Placement (AP) tutorials, service-learning, study hall, arts production, science enrichment, and so forth. Specialists, such as reading teachers, can divide students into groups requiring different types of assistance.

Tutorials may be led by persons other than certificated staff to help reduce the numbers of students per tutorial. Tutorial leaders may include campus staff (e.g., aides, administrators, librarians, clerks, counselors) and persons off campus (e.g., parents, business people, AmeriCorps members, senior citizens, college work-study or service-learning students). Nonstaff tutorial leaders will need to complete required fingerprinting, health, and security clearances and make an absolute commitment to regular attendance on the days and periods designated. Some schools have found that assigning a pair of nonstaff volunteers to tutorials solves most absentee problems as one team member covers for the other in case of illness, vacations, or unexpected job obligations.

Attendance at tutorials. Staff will need to decide whether to make attendance at tutorial sessions required or optional. Many schools that began with optional tutorial sessions have switched to making the tutorial or study session mandatory. There are several benefits to mandatory tutorial sessions:

- All students participate in tutorials, which removes the stigma of attending them.
- A tutorial for the highest achieving students may be operated as a study group, modeling an excellent structure for future college study habits.
- Resource students with individualized education programs (IEPs) who need extra help in standards can be served during tutorials without removing them from class.
- Required tutorials provide adults with an opportunity to be seen by students as coaches who work in tandem with them.
- Tutorials involving all faculty and all students clearly carry the message that mastering California's academic content standards is a priority.

If a tutorial is not mandatory, it may be scheduled after school ends so that students who are not involved can leave campus and do not require supervision. This option is clearly not ideal at schools where many students are bused.

Tutorial schedules. The school staff determines the duration of tutorials and the scheduling. A school may schedule tutorials in four-week blocks.

Many students will master the standards targeted in that period and may move on to another area of standards. Those students who need more time in a particular standards tutorial are scheduled to stay. Students in AP, International Baccalaureate, or honors tutorials may stay all year. The number and topic of tutorials may be anticipated by using test scores, a brief screening test, or a teacher's recommendation. A computer program can match student needs to available openings; most students will benefit from practice in more than one tutorial option.

Creating Parallel Classes

The idea of parallel, or double, class assignments is not new and may be feasible in a standards-based education system. For example, a freshman who needs serious help in meeting reading standards is counseled to take his or her regular English 9 class and a tutorial focused on the reading standards. Thus the student takes two English classes at the same time.

Parallel classes have the following advantages:

- They provide the extra time and attention some students need to master rigorous standards.
- They allow students to take regular, rigorous academic course work with students at or above grade level while getting extra standards-oriented support in parallel classes.
- They boost students' achievement in regular classwork.
- They offer another clear coaching role for teachers.
- They emphasize to students and parents the importance of mastering standards.

Parallel classes focus on the language arts and mathematics standards, and schools have created these classes in basic mathematics, reading, and writing. Large schools can offer a wider range of parallel classes than can small schools. Large schools, for example, have the luxury of testing students with low reading scores to determine whether the students have difficulty with phonemic awareness or comprehension. Such schools can offer both types of parallel reading classes to which students are assigned, depending on their individual needs.

Parallel mathematics and English classes may also be offered within an arts or career and technical area *if most of the course is focused on mastery of the key standards*. For example, an English class in the arts might focus on the delivery of important, agreed-on English–language arts standards in the context of the visual and performing arts. Such a course may be very attractive to some students, luring them into mastering the standards. Such courses may carry different units of credit, such as three units of English and two of the arts for one semester.

Parallel classes may also be tailored to a specific subject. For example, a school district may have all eighth graders take a traditional algebra course. Students entering eighth grade with low mathematics scores take the traditional algebra I class and a concurrent second algebra class that uses a different curriculum, including a computer tutorial.

Parallel courses may also be appropriate when students are ready to move beyond the mastery of state academic content standards. For example, high school students taking a spring semester anatomy and physiology course at the local community college benefit significantly from a parallel, yearlong human anatomy course at their high school. The parallel class prepares students in the first semester to begin the college course with confidence and then supports them in meeting the demands of college-level work through the second semester.

Community college-based parallel courses may also provide students with additional opportunities to demonstrate mastery of a local outcome that requires familiarity with a wide range of technologies. Such courses provide students with access to real-life software applications.[6]

Methods of scheduling parallel classes. Parallel classes are most beneficial when they are taken concurrently with the regular class. Most schools accomplish this goal by using the parallel class in lieu of an elective class, a practice called *elective replacement.*

For example, a freshman takes English 9, world history, algebra, health/physical education, Spanish I, and mathematics standards, the last class being the parallel course in lieu of the band class originally selected. This schedule provides the student with great external motivation to master the standards in order to take a regular elective course.

In schools in which a large percentage of students are underperforming, the entire typical course structure may be changed. For example, some California high schools currently require all freshmen to take a reading class in addition to English 9. Instruction is targeted either to individual assessed needs in heterogeneous groupings or to groups of students divided according to reading needs. In this way *all* students improve in reading skills at the beginning of their high school careers.

A second method of providing parallel classes is through a zero period or after-school course. The advantage of this approach is that students take the full complement of classes enjoyed by their peers while getting the support they need. However, several challenges exist. First, teachers of zero periods or after-school courses must receive additional pay, or they must be released for an additional period during the school day. This approach will cost more than programming parallel classes during the regular school day. Second, transportation may be an issue, especially for schools that bus a significant percentage of students. In addition, other obligations, such as family commitments or part-time jobs, often pose scheduling problems.

A third method of scheduling parallel classes is through Saturday school. The advantages of this approach are as follows:

- Funding is available for students who are in danger of failing the *California High School Exit Examination.*
- This scheduling method allows students to take a full complement of courses during the regular school week.
- Students tend to work hard during the school day to master the standards so they can avoid being required to attend Saturday school.

The disadvantages of this scheduling method include attendance problems and a shortage of faculty members.

Placement in parallel classes. Choosing which students must attend parallel classes and which classes to schedule is a site-level decision. The decision of whom to choose for attendance will most likely be based on the greatest need; that is, parallel courses may be required for students farthest from mastery of the standards and only recommended for those who are closer to mastery.

Determining which parallel class a student takes is a real problem for high schools in which low-achieving students have poor mastery of standards across the board. Many experts believe that counselors should advise students struggling with both language arts and mathematics standards to take parallel reading and writing courses first. Experts consider literacy the foundation of success in most other courses, including mathematics. Others believe that students should be scheduled first for the class in which they can make the most progress, thereby bolstering self-confidence in their ability to master standards.

Effects of parallel classes. Substantial research demonstrates the positive effect of parallel classes on student achievement. Parallel classes are a feature of Johns Hopkins University's Talent Development High School Model. Schools using this model have measured an increase in student attendance, achievement, and graduation rates. Information about the model may be found on the Northwest Regional Educational Laboratory's Web site <*http://www.nwrel.org/scpd/catalog/index.shtml*>. In addition, *The New York Times* reported that eighth graders in Intermediate School 187 posted the largest test gains in the entire city in mathematics after they took ten mathematics classes a week instead of the traditional five.[7]

On the other hand there are undesirable effects of parallel classes: increased demand for English and mathematics teachers (a supply already diminished by ninth-grade class size reduction) and diminished opportunities for students to take electives. Senate Bill 2X (1999) authorizes the development of *CAHSEE* and explicitly suggests that school districts consider reducing the electives available to any student who has not demonstrated the skills necessary to succeed on the exit examination. However, in doing so, the pool of students available to fill elective courses diminishes, and tenured teachers in elective courses may need to look to course integration (e.g., English in the arts) or additional training in teaching reading or mathematics.

Capitalizing on Summer and Intersession Opportunities

Although nearly everyone agrees that summer and intersession courses can be better used, there is much less consensus on what should be done to improve effectiveness. In the past a student who failed an English class (due to noncompletion of homework or class work) could repeat the class during summer or intersession to earn a passing grade. The judgment about a student's involvement in summer school and completion of requirements related only to grades and units—not to a criterion or standard.

In a standards-based system students should be referred to summer or intersession courses if they have not mastered the state academic content standards. This judgment may be based on students' failure to pass any section of *CAHSEE*, low STAR scores, less than Proficient scores on a locally developed Standards Assessment Report in academic courses, failure to master end-of-course outcomes, or failure on other local measures. The course work should focus on the standards so that students can target exactly what they need to know and be able to do to succeed in class and on *CAHSEE* and other high-stakes tests. The question is what course format will work best to deliver those outcomes. Specific examples and options are as follows:

- *Tutorial-type classes in reading, writing and English language conventions, and mathematics.* Students take a generic class in writing and English language conventions. For example, the class might cover those standards tested by *CAHSEE* and the STAR program (e.g., establishing a thesis, using precise language, developing main ideas through supporting evidence) that can be taught across writing modes.

  English teachers refer students with a "diagnosis" composed minimally of a list of writing standards not yet met. Students work in small groups on various assignments by writing in different modes (e.g., biographical narrative, response to literature, persuasive composition) and by applying the direct, whole-group instruction in the generic standards to the specific mode they are working in. In this way students can demonstrate mastery of both writing strategies and conventions and writing application standards.

- *Open-entry, open-exit classes for targeted standards.* This approach calls for the school and teachers to be flexible in enrollment patterns. Classes in the open-entry, open-exit model allow students to focus on mastery of specific standards. For example, a single class focuses on writing biographical narratives (Writing Standard 2.1) by using appropriate English language conventions (Written and Oral English Language Conventions Standard 1.0). Students remain in the class until they master the biographical essay mode and have made progress on conventions; they then move to another section to concentrate, for example, on writing business letters, still working on the conventions. Students may enter the class at any time; therefore, learning must be set up in modules.

- *Regular courses that focus only on delineated standards.* In this nearly traditional model, students who have failed a course, say English 9, are enrolled in some form of supplemental instructional program, such as a summer or intersession English 9 class that focuses on specific language-arts standards. For example, a single class might focus on Reading Standards 3.3 through 3.10, Writing Standards 2.3 and 2.4, and Written and Oral English Language Conventions Standards 1.4 and 1.5. If students in the repeat class have already mastered a standard being taught, they may use the time to assist others or work independently on another standard. This model allows for the making up of missed units of credit in a more traditional model, but it may not move students toward mastery as quickly as some other models do.
- *Standards laboratories.* Some standards lend themselves to individualized, computer-based tutoring programs designed to improve student mastery of writing mechanics and mathematical algorithms. Schools must carefully analyze the costs and benefits of these systems and examine the data behind their claims of effectiveness. Researcher Harold Wenglinsky found that standardized test scores for students placed in "skill-drill" and "electronic ditto sheet software" labs actually *decreased* after students were significantly exposed to those labs.[8] Therefore, school staff should choose only products with impeccable track records of success documented by independent research. The great advantage of the labs is that they offer expert tutors-in-a-box and can be staffed by classified personnel overseen by a credentialed teacher.

Offering Distance Learning

Another effective strategy identified in the research on high school reform addresses the use of technology to promote mastery of standards, both in the conventional approach of most California high school programs and in the use of technology for distance learning.

In *School's Out* Lewis J. Perleman predicted the end of school as it has been known and a future in which students would be clustered in small learning communities receiving exemplary instruction from master teachers and responding interactively through telecommunications.[9] Far-fetched? Perhaps, but many high schools are already effectively using distance learning to meet students' needs, and more are added to the ranks each week.

High schools capitalize on distance learning in various ways. Some are providing online AP classes. Approximately 70 percent of California high schools offer at least one AP course; the average high school offers only three or four subjects of the 32 possible. Many schools lack either the resources or the number of students to warrant offering AP courses. Others have been unable to find teachers even when the students and resources exist. For those schools, online courses may be the answer.

The University of California College Prep (UCCP) Initiative offers California students the opportunity to take AP or honors classes online to prepare for admission to the University of California system and other top universities. The initiative serves students at rural, remote, small, or financially disadvantaged schools; schools with a large percentage of economically disadvantaged students; and schools that do not have a complete offering of courses to meet the entrance requirements of the University of California system. Experienced AP high school teachers or college and university instructors teach the online courses. More information can be found on the UCCP Initiative Web site <*http://www.uccp.org/*>. Many private companies and universities offer similar course work for a fee.

High schools are also using online learning providers to meet the needs of other special populations. For example, the U.S. Department of

Education's Office of Migrant Education and the ESTRELLA (Encourage Students Through Technology to Reach High Expectations in Learning, Life Skills, and Achievement) project use laptop computers and distance learning to help children of migrant workers earn a high school diploma in Texas.[10]

Students with disabilities can also receive academic support through distance learning. The law mandates that schools receiving federal funds cannot discriminate against students with disabilities. Most online learning providers have designed accessibility into their Web sites and courses; look for the icon of an English policeman, indicating that the site is "Bobby approved" for access by persons with disabilities. Adaptive technology, such as speech synthesizers and audio components, can also help in overcoming individual access barriers.

Finding a distance-learning provider is no longer an issue. For example, the Virtual High School (VHS) Project <*http://vhs.concord.org*>, funded in part by the U. S. Department of Education, in 2001 offered more than 150 courses in 32 states and 13 countries to about 250 schools, including seven California high schools. At VHS, the per-student tuition fee is significantly reduced if a school facilitates an online course that students in any participating school can take. However, creating a course for online delivery can take anywhere from 66 percent to 500 percent longer than creating a traditional course.[11] Some states (e.g., Alabama, Florida, Kentucky, Maryland, Nebraska, and New Mexico) are creating online high schools that offer curricula required for graduation, and California may well do the same in the future.

Because distance learning can provide access to instruction anywhere and anytime, schools can arrange for students to work in evening computer labs on site (with classified staff or volunteer supervision), at the public library, or from home. For students whose learning styles require more interaction than typical distance learning formats provide, some Web high schools offer real-time classes in which students can converse without the delays created by e-mail.[12]

Offering Independent Study

Independent study is currently used by high schools to serve various purposes. One purpose may be to help students master particular state academic content standards.

For example, if a high school wants to provide more options to help students in mastering the mathematics standards, but the mathematics teachers are already handling full class loads, the principal may hire a retired mathematics teacher. The retired teacher might work on a contract basis for five hours a week, including an hour on campus after school on Tuesdays and Thursdays, to meet with students taking an independent study course called Algebra Revisited. Those students have passed an algebra course but have not yet passed the mathematics portion of *CAHSEE*.

The teacher divides the 34 students into groups enrolled according to the standard they are working on, and she schedules those six small groups in 20-minute intervals during her two hours on campus. The study groups meet during the week so that members can help each other master the material (thereby demonstrating mastery of the school's ESLR on working as effective team members). The 20-minute session with the teacher introduces the focus concepts for the following week. The concepts are explained further in the text and on the Web site the teacher maintains to complement the materials. She corrects students' work at home and returns it to them through the school's fax machine or does the entire transaction online.

This method allows the school to provide students with an opportunity to learn and master the mathematics standards, to circumvent the difficulty of recruiting mathematics teachers, and to grant students elective credit. Of course, independent study is not for all students, but it does provide one more option in the site's support plan.

Providing Embedded Student Support

The Advancement Via Individual Determination (AVID) program and the College Board's Equity 2000 program embed student support in the daily schedule. AVID provides encouragement and academic support to low-achieving students from groups traditionally underrepresented in higher education. In most schools students are selected to participate in AVID based on site-determined characteristics, including grades, STAR scores, and the potential for success in higher education. Other schools have made AVID a part of their school program for all students.

A ninth-grade AVID class teaches students learning strategies, such as inquiry, resource identification, and higher-order thinking skills, that are frequently embedded in the school's local outcomes. In addition, a tutoring program in academic subjects supports students throughout high school. To focus AVID components on mastering standards would require very little adjustment of the traditional education model. Support is available for AVID implementation at the site level. The AVID Web site <*http://www.avidcenter.org/*> provides more information and a list of California schools that have AVID programs.

Another program, the College Board's Equity 2000, has sites in Sacramento and San Jose. The model supports *all* students' participation in a college preparation program and requires all students to complete algebra by ninth grade and geometry by tenth grade. The high expectations are accompanied by support services, such as Saturday Academies, Summer Scholars Program, and Academic Enrichment Laboratories. The College Board Web site <*http://www.collegeboard.org/*> provides more information.

Notes

1. The Search Institute has identified 40 assets in development that may be associated with positive behaviors, including success in school. A list of the assets is found on the Web site <*http://www.search-institute.org*>.
2. Bonnie Benard, *Fostering Resilience in Children.* Urbana, Ill.: ERIC on Elementary and Early Childhood Education, University of Illinois, 1995.
3. The Center for Youth Development and Policy Research Web site <*http://www.aed.org/us/cyd/mission.html*> provides detailed information on the model first articulated by Karen Pittman and Michele Cahill in *A New Vision: Promoting Youth Development* (1991).
4. *Mathematics Content Standards for California Public Schools, Kindergarten Through Grade Twelve.* Sacramento: California Department of Education, 1999, p. 29.

5. *English–Language Arts Content Standards for California Public Schools, Kindergarten Through Grade Twelve.* Sacramento: California Department of Education, 1998, p. 58.
6. One example is available through the National Library of Medicine, "The Visible Human Project," <*http://www.nlm.nih.gov/research/visible/visible_human.html*>.
7. Anemona Hartocollis, "Brooklyn School Breaks from the Pack: A Case Study in How State Testing Was Used to Improve Education," *The New York Times*, October 19, 2000. An abstract of the article is available in the archive section of the *Times* Web site <*http://www.nytimes.com*>.
8. Harold Wenglinsky, *Does It Compute? The Relationship Between Educational Technology and Student Achievement in Mathematics.* Princeton, N.J.: Educational Testing Service, 1996. Available on the Educational Testing Service file transfer protocol <*ftp://etsis1.ets.org/pub/res/technolog.pdf*>.
9. Lewis J. Perleman, *School's Out.* New York: William Morrow and Company, 1992.
10. The ESTRELLA Web site is <*http://www.estrella.org*>.
11. American Federation of Teachers, E-testimony to the Web-based Education Commission, August 18, 2000, p. 3 of AFT testimony. Available on the Web site <*http://www.webcommission.org/*>.
12. Karen Thomas, "Web-Based High School to Go Nationwide," *USA Today* Tech Report, October 25, 2000. Article available on the Web site <*http://www.usatoday.com/life/cyber/tech/cti716.htm*>.

7

Creating Structural Supports for Student Success

This chapter investigates ways of forging bonds between the student and the school to create a supportive infrastructure. The approaches for personalizing the high school experience include creating smaller schools and having the student take responsibility for his or her own learning.

Creating Smaller, More Personalized Learning Environments

Research demonstrates that smaller, more personalized learning environments—as a stand-alone intervention—result in many indicators of student success: higher grades, better attendance, lower discipline rates, higher school completion rates, and higher standardized test scores.[1] Successful schools create small, highly personalized, and safe learning environments. With support from the federal Smaller Learning Communities Program, schools throughout California are taking steps to create more personalized learning environments.[2]

The focus here is not on a prescriptive approach—spelling out exactly what high schools must do to fit a specified model—but instead is on offering general parameters within which a school can carve out the programs, activities, and approaches that best fit its circumstances.

Sometimes, students simply need more personal attention to focus on mastering standards. Student success seems to be stratified along socio-economic lines in large, comprehensive high schools.[3] Therefore, creating smaller schools or learning environments can reduce the well-known effects of race and poverty on school success.[4]

Schools may institute various approaches to creating smaller, more personalized environments, and some approaches are discussed briefly here. Profiles of California high schools that use these approaches may be found at the Web sites for Specialized Secondary Programs <*http://www.cde.ca.gov/ssp*> and California Partnership Academies <*http://www.cde.ca.gov/partacad*>.

Small Units Within a School

There are many variations of the concept of smaller units within the school: career pathway academies, California Partnership Academies, ninth- or tenth-grade "houses," and independent "school-within-a-school" magnets.[5] These models all have the following common factors:

- A relatively small group of students is included.
- The students are served by a small subsection of the faculty.
- Activities are carried out to bond the student and faculty groups.
- Faculty and staff work collaboratively to address students' needs and problems.

These models also have significant differences. For example, "houses" bond ninth-grade students to the high school and provide the students with a safe haven in the storm of transition from middle grades to high school. On the other hand academies and magnets generally use a thematic focus for integrating academic standards into applied work, making the work more relevant to many learners.

Materials are available online to help schools establish smaller units within a school. For example, many resources can be found at the U.S. Department of Education's Smaller Learning Communities Web site <*http://www.ed.gov/offices/OESE/SLCP resources. html# PUBLICATIONS*>.

Scatterplex

A scatterplex is a high school with a main campus augmented by smaller annexes that are not contiguous. Frequently, a scatterplex is the answer to burgeoning student populations in schools that have no more land for portables. Scatterplexes are usually served by a centralized administration with lead teachers at the annexes.

If a small property is available within the school's geographic catchment area, relocatable buildings may be placed in the catchment area to accommodate a group of students and teachers in a magnet school, an academy, or just an extension of the comprehensive high school. If land is not available, a building may be purchased or leased and renovated to meet Division of State Architect (DSA) standards.

When land is not available or buildings that could be renovated to meet DSA standards are too costly, a school might create a dependent charter school as a scatterplex option. Charter school buildings are subject only to local building and zoning code requirements, opening a source of potential facilities, and one charter school can exist in several different locations. A dependent charter could be configured as a series of magnets, academies, or extensions of the main campus.

However, the state considers dependent charter schools to be stand-alone schools. Although the school district board usually governs a dependent charter school, the school must function according to state law for charter schools. Additional information on charter schools is available through the following sources:

- The Charter Schools Unit of the California Department of Education <*http://www.cde.ca.gov/charter*>
- The Charter Schools Development Center <*http://www.csus.edu/ier/charter/charter.html*>
- The U.S. Charter Schools Organization <*http://www.uscharterschools.org/*>
- The California Network of Educational Charters < *http://www.canec.org*>

Advisory Program

A less dramatic way to personalize the learning environment is through advisory programs. Advisories that are functioning well generally have a relatively small group of students served by a single staff member who promotes ongoing bonding. Advisories are also characterized by well-structured lesson plans that the whole school or an entire grade level shares.

The purpose of advisory programs varies widely among schools. In some schools the advisory program has a single purpose, such as delivering a character education curriculum related to local outcomes. But most schools use advisory programs for various purposes, including the following options:

- An old-fashioned homeroom to take care of school business and promote school culture
- A venue for student schedule planning and course enrollment
- A delivery point for certain personal attribute curricula (e.g., conflict resolution or anger management)
- A laboratory for developing study skills
- A structure for planning, arranging, organizing, and reflecting on community service
- A point of contact for families or guardians, with advisers calling the students' homes at regular intervals to report progress
- A college orientation and application support center
- A career awareness and exploration opportunity

The school community must establish the exact purpose of an advisory to ensure that it achieves the desired goals.

An advisory is included in the school day although the duration and frequency of meetings may vary substantially among schools. Some schools schedule an advisory daily for 20 minutes, and others meet once every two weeks for more than an hour. An advisory period can easily be scheduled to complement a tutorial period; that is, a tutorial might be offered in the same time slot on Monday, Wednesday, and Friday that the advisory occupies on Tuesday and Thursday.

The leader of the advisory also varies significantly from school to school. In some schools only certificated teachers are advisers. The advantage of this system is that teachers already have classroom management and instructional skills and are generally prepared to deliver the advisory offerings previously discussed. The disadvantage is that this system creates class-size student groups that are often too large to accomplish significant bonding. Other schools use some or all of the professional staff, including counselors and administrators, to augment teacher ranks. Some enlarge this group further with carefully selected volunteers from the clerical staff, project coordinators, bus drivers, and so forth. The larger the number of advisers, the smaller the groups of students.

There are several ways to assign students to an advisory, depending on its purposes. Students may be given a choice of advisers; advisers may be given a choice of students; a given class (e.g., fifth period) may become an advisory; staff may determine the assignment of some student subgroups to specific advisers and schedule the rest for convenience; or the computer may assign students randomly. Some systems give students a good sense of continuity by having them stay with the same adviser throughout high school. Additional information on an advisory is available through a variety of sources.[6]

Integrated Courses

Some neurological research related to human learning indicates that students learn, retain, and transfer information more easily when it is connected to an existing base of learning and integrated across disciplines.[7] Therefore, integrated courses may be a better way to support student mastery of standards because of the interdisciplinary design. A second advantage of integrated courses is that they offer a longer block of time for students to connect to the teacher. The third advantage is that they allow students to develop deeper, meaningful relationships with an adult,[8] relationships that both enhance academic success and increase resiliency to negative behaviors.[9]

For example, in a medium or large high school with a traditional or block schedule, a teacher may be assigned four English 11 (American literature) classes and one yearbook class, each with 33 students, for contact with a total of 165 students and a total of 250 minutes per class. If that same teacher taught an integrated U.S. history and English 11 (American literature) course (now renamed American studies), she or he would teach two classes of American studies and the yearbook course, for a total of 99 students all year and 500 minutes per week per class in American studies. Similarly, students who traditionally would have six teachers now have just five.

Looping

Looping is the practice of assigning a teacher to the same group of students as they progress to the next grade level each year. It effectively personalizes a large high school for students who have a handful of teachers and helps them in getting to know their teachers well. Small schools loop by necessity, but large schools increasingly are looping by design, particularly in the ninth and tenth grades when transition issues can translate into dropout problems. Teachers in looping systems believe that they lose little time at the beginning of the second and subsequent school years and that students remain on task for longer periods because there is no "testing" of teachers after the first year.[10] Teachers' in-depth knowledge of the students' needs, learning styles, strengths, and weaknesses results in much more effective instruction.[11]

Although the advantages of looping are obvious, there are also disadvantages as looping represents one more variable in an already complex scheduling system. Teachers must be prepared to teach two consecutive classes (e.g., algebra and geometry or English 9 and English 10), not usually a major barrier but an issue that needs to be addressed. Finally, although the system generally produces excellent results, at times, in the best interest of a student, teacher, or both, a relationship should not be continued past a single year. These circumstances must be handled with care in a looping system.

Mentoring

Mentoring personalizes the high school experience for youths at risk of academic failure and encourages them to focus on mastering key standards. Mentoring programs cover the spectrum, including teen

Big Brothers/Big Sisters (available in some communities) and informal mentoring by work experience or internship supervisors. Programs vary substantially by community and often are targeted to specific subgroups, depending on which organizations are most active (e.g., 100 Black Men, American Association of University Women).

The U.S. Department of Education offers *Yes, You Can: A Guide for Establishing Mentoring Programs to Prepare Youth for College* (1998) on the USDE Web site <*http://www.ed.gov/pubs/YesYouCan/sect1.html*>.

Class Size Reduction

Although researchers continue to debate the academic advantages of smaller class sizes, the results in terms of higher attendance, lower discipline rates, and better bonding to the school are clear.[12] Because of the high cost of this intervention, high schools usually depend on state initiatives to reduce class size, such as the current programs for ninth-grade English and one other subject chosen from mathematics, science, or history–social science.[13] The exception appears to be in independent California charter high schools, which have significantly lower class sizes than are generally found in comprehensive high schools. Although explanations may vary, local control over finances and significantly less regulation are frequently cited as reasons that these schools can afford smaller classes.

Nontraditional Programs

Smaller programs, more individual attention, curricula tailored to personal needs, and a higher ratio of student support are also available through most of California's alternative programs, including continuation high schools, traditional independent study programs, opportunity classes, necessary small high schools, community schools, and correctional schools. Eleven percent of the state's high school students are currently enrolled in such programs. Further information on these alternatives may be found on the California Department of Education Web site <*http://www.cde.ca.gov/spbranch/essdiv/alted_index.html*>.

Maximizing Instructional Time

Research has confirmed that longer and more flexible periods of time for teaching and learning yield many benefits for students and teachers.

Most California high schools now operate on a day, week, and year schedule that looks different from the schools of the 1950s. No longer are students placed in lockstep fashion through six or seven periods of equal length for the whole school year. Instead, schools offer various scheduling options. Almost all options provide longer blocks of time for some or all classes, thus offering students the advantage of concentrated learning time. Teachers also benefit from having more time to approach the standards by accommodating students' multiple learning styles. Some schools allow students to take more classes than the traditional six courses a year currently available in most systems.

Many approaches involve block scheduling. Block schedules provide fewer classes per day with more time per class. The advantages of block scheduling include reduced student contact with many teachers per day, greater flexibility for instructional activities,[14] elimination of time spent on unpacking and packing and a passing period,[15] and, in some models, the opportunity for failing students to retake a class without falling behind a grade level.[16] Some concerns regarding block scheduling include difficulty in scheduling music and Advanced Placement classes, content retention, overuse of lectures and study halls, drop in class time, problems with transferring from a block school to a nonblock school, and difficulty making up absences.

Teachers need support to make the shift from the traditional 50-minute period to the new blocks, which may be 90 minutes or longer. To realize the potential of block scheduling, nearly all teachers need professional development and time to make changes in the pace of activities, applications of learning theory, assessment strategies, classroom organization, and other teaching and learning components.[17]

There are several options for block scheduling. Detailed examples are available on the Sonoma State University Web site <*http://www.sonoma.edu/cihs/highschoolreform*>. The time estimates in the following examples are based on a school day of about 325 minutes of instruction and a passing period, which is equivalent to the traditional system of six 50-minute periods with a five-minute passing period. This traditional schedule provides 9,000 instructional minutes per class per year. Obviously, any given model can offer more instructional minutes per class by increasing the total minutes of instruction and passing period beyond 325 per day.

Alternate-Day Block

The alternate-day block usually provides six classes for each student, as in the traditional model, but there are longer periods and fewer classes per day. For example, the schedule might run as follows: Monday and Thursday, periods 1, 3, and 5 meet for 100 minutes; Tuesday and Friday, periods 2, 4, and 6 meet for 115 minutes; and on Wednesday, the traditional schedule with all six periods is followed. Some schools use a variation that has no traditional schedule day—just A and B days that alternate through the year. The advantages beyond those cited for all block schedules are that students and teachers have only three courses to prepare for each day, and teachers have fewer students each day.

If the periods are 115 minutes long, the instructional minutes per class per year total 10,080 or about 112 percent of the time devoted to a course in traditional scheduling.

4 x 4 Block

The 4 x 4 block plan calls for students to take four classes in the first semester and four different classes in the second semester. A full year of instruction is compressed into one semester. The advantages are as follows:

- Students and teachers have only four courses to prepare for each day.
- Teachers have fewer students each day and week.
- Students can take eight classes each year, increasing the potential for electives, standards labs, and so forth.
- Students can retake failed courses during the school year instead of waiting until the summer.
- Textbook costs can be cut in half if courses are balanced between the first and second semesters.

If the periods are 83 minutes long, the instructional minutes per class per year total 7,470 or about 83 percent of the time devoted to a course in traditional scheduling. However, a disadvantage is an increase in the cost of instruction. On the average, for every 1,000 students, schools will need to either hire an additional 4.3 teachers or increase class size by three to four students.

A 3 x 3 block has many of the same advantages as a 4 x 4 block except that students take only six classes per year. However, lengthening the periods to 95 minutes results in 8,550 instructional minutes per class per year and 25 to 35 minutes a day for a tutorial or advisory.

Regular Trimester Block—Six Classes

In the regular trimester plan, students take six classes in the school year, which is divided into three equal trimesters of 60 days each. Each trimester the student takes two classes, each lasting 160 minutes daily, thus compressing the course to complete a full year of instruction in one trimester. The advantages are the same as those for the 4 x 4 block except that teachers and students have only two courses to prepare for each day and that textbook costs can be further cut. The disadvantage is that students can take only six classes per year. If the periods are 160 minutes in length, the instructional minutes per class per year total 9,600—more time than in a traditional schedule.

Regular Trimester Block—Nine Classes

The regular trimester plan for nine classes a year also divides the school year into three equal trimesters of 60 days each. Each trimester the student takes three classes of 105 minutes each. The advantages are the same as those for the regular trimester block of six classes except that students can take nine classes. If the periods are 105 minutes long, the instructional minutes per class per year total 6,300, slightly more than two-thirds of the time provided for a course in a traditional schedule.

Copernican Trimester Block

In the Copernican trimester block model, which has many variations, students attend six major classes per year, two each trimester, plus one yearlong class or two semester-long classes. In the morning major classes are conducted for two hours each for 60-day trimesters. In the afternoon students have a 30-minute advisory, tutorial, or seminar followed by a 50-minute period for additional electives, physical education, AVID, and so forth. This plan produces 7,200 instructional minutes per year (80 percent of the time in a traditional schedule) in the six major classes and 9,000 minutes per year (or 4,500 minutes per semester) in the shorter class.

75-75-30 Trimester Block

In this model students take three major classes in each of two blocks of 75 days. A third block of 30 days can be fashioned to include, for example, one of the following options: one class, leading to a total of 9,750 minutes; or two classes of 160 minutes each, for a total of 4,800 minutes. Each trimester the student takes three classes of 105 minutes each. The advantages are the same as those for the regular trimester block described above except that students can take nine classes. If the periods are 105 minutes long, the instructional minutes per class per year total 7,875 or 88 percent of the time allocated to a single course in the traditional schedule.

When educators restructure the schedule to provide greater opportunities to learn, they should also consider building in time for advisories and tutorials. The Sonoma State University Web site <*http://www.sonoma.edu/cihs/highschoolreform*> has additional information.

Encouraging Student Responsibility

Changes to the school schedule can increase the bonding of students to their schools. However, increased bonding can also result from student buy-in and investment bolstered by acceptance of personal responsibility.

Adults are familiar with the process of planning and organizing progress toward meeting a goal. And they are extremely aware of what has (and has not) been completed along the way to ensure the success of Aunt Hattie's eightieth birthday party, to complete a landscaping job on time, or to study sufficiently to pass the bar exam. The planning process is so essential to reaching goals that Steven Covey devotes two chapters in *The Seven Habits of Highly Successful People* to methods for planning and organizing.[18]

Planning and assessing personal progress toward a goal have several effects:

- They heighten one's awareness of the goal and the steps necessary to reach it.
- They allow one to ensure that all the steps can be completed, even with glitches.
- They allow one to marshal the help and resources needed for success.
- They significantly increase the chances of reaching the goal.

These same benefits accrue for youths, but the traditional system seldom requires students to plan goals and assess progress toward meeting them. Far too often students are not held accountable when they offer helpless responses, such as "I didn't know I was five units short in mathematics to graduate" or "I was absent when you announced that the term papers were due on Wednesday." When educators constantly accept the responsibility for student planning and organizing (or the lack thereof), young people learn that giving excuses or being helpless is almost as acceptable as doing the real work.

High school is the perfect time to ensure that students have the foundation for adult behaviors and frequent opportunities to practice planning and organizing skills. Strategies that will both focus the student on mastering the standards and provide instruction in effective planning and organizing are discussed below.

The Graduation CAP (Career and Academic Plan)

The Graduation CAP, also called the Individual Career and Academic Plan, is based on the academic, career, personal, and social development standards found in the *National Standards for School Counseling Programs.*[19] It captures the student's ongoing and evolving plan for high school graduation, postsecondary education or training, and short- and long-term career goals. It also delineates what students have successfully completed to date in reference to the milestones required to accomplish major goals, such as these:

- Mastery of standards targeted by the school, including those identified for the *California High School Exit Examination (CAHSEE)*
- Passage of all sections of *CAHSEE*
- Completion of required course work and competencies for graduation
- Demonstration of other local outcomes
- Test dates and scores for the *Golden State Examination, Assessments in Career Education, SAT I* and *II, Advanced Placement Examination,* and *International Baccalaureate,* as applicable
- Targeted college or postsecondary training program entrance requirements
- Service-learning, work experience, and internships
- Leadership, political activism, extracurricular activities, and other accomplishments

Obviously, the Graduation CAP is also a tremendous resource for students completing their résumés and college applications.

Such plans are not new in education; schools have always kept and updated individual student records and will continue to do so. For example, the tenth-grade counseling program requires a systematic review of each student's academic progress and counseling regarding educational options in the last two years of high school.[20]

The difference between the Graduation CAP and other plans is that the *student* is responsible for completing the CAP and updating it at least twice each year. The update includes the classes completed, grades earned, *CAHSEE* scores, and standards mastered to date and also features a bulleted section developed by the student showing how she or he will move to the next level in the forthcoming semester. This process can be completed in an advisory, a homeroom, the first period, or specified classes by grade level (e.g., freshman: mathematics; junior: English; senior: government). A copy of the CAP is sent home with the student for the parent's signature and returned to the school. Both the Graduation CAP and student-led conferences and exhibitions highlight student planning and are excellent vehicles for teaching and assessing a local outcome related to self-management.

Student-Led Conferences or Exhibitions

Student-led conferences or student exhibitions are another opportunity for students to demonstrate that they are planning and organizing milestones for graduation and postsecondary pursuits.

Those activities hold students accountable for evaluating and explaining their academic progress to their families while allowing a forum for student voices. The activities also provide students with motivation to improve their school performance and an opportunity to assume greater control over their personal growth. Studies show that student-led conferences and exhibitions improve students' sense of responsibility and increase students' and families' understanding of academic progress.

Student exhibitions generally culminate a semester or year of study. They may present a senior project or internship learning experience; demonstrate specific, required, or student-chosen skills; or review the student's progress focused on the Graduation CAP. The exhibitions are frequently presented before a panel that includes faculty, families, and community members. Exhibitions tend to be tailored to a site and generally are more complex than student-led conferences.

Student-led conferences occur at least annually, using a structured format that usually includes a student's demonstration of mastery of standards. The conference is between the student and the parent; a teacher or an adviser is present to answer general questions. Four to six conference stations may be in each room. Each conference station has the resources (e.g., a computer or an overhead projector and screen) the student needs to demonstrate his or her mastery of the work.

Conferences are often scheduled for 15 to 30 minutes each so that several conferences can be completed each hour at each station in the room. Three conferences per hour at each of five stations for two and a half hours one evening a year results in 37 student conferences and easily covers all students if every teacher participates. If the school uses noncertificated staff to lead an advisory, the number of students per room is reduced, and even less teacher time is involved.

Student-led conferences must be prepared in advance, and this function may be performed through the advisory, the English class, the homeroom, a periodically lengthened first period, or student appointments with counselors or career center staff. Many resources on student-led conferencing are available.[21]

Notes

1. Kathleen Cotton, *School Size, School Climate, and School Performance.* Portland, Ore.: Northwest Regional Laboratory, 1997. Available on the Web site <*http://www.nwrel.org/scpd/sirs/10/c020.html*>.
2. In 2000 the U.S. Department of Education offered grants to support the Smaller Learning Communities program. Abstracts for current grantees may be found on <*http://www.ed.gov/offices/OESE/SLCP/news.html*>.
3. Mary Anne Raywid, "Synthesis of Research, Small Schools: A Reform That Works," *Educational Leadership,* Vol. 55, No. 4 (December 1997/January 1998).
4. V. Lee and J. Smith, *Collective Responsibility for Learning and Its Effects on Gains in Achievement for Early Secondary School Students.* Madison, Wis.: National Center on the Organization and Restructuring of Schools, 1995.
5. See "Adapting Organizations to Increase Learning," in *Raising the Educational Achievement of Secondary School Students: An Idea Book,* Vol. 1 of *Summary of Promising Practices,w* for additional descriptions of small learning environments. Available on the Web site <*http://www.ed.gov/pubs/Raising/vol1/pt3.html*>.
6. D. J. MacIver, "Meeting the Needs of Young Adolescents: Advisory Groups, Interdisciplinary Teaching Teams, and School Transition Programs," *Phi Delta Kappan,* Vol. 71, No. 6 (1990), 457–64. Advisory program information is available on the Web site <*http://www.nmsa.org/services/ressum9.htm*>. Look for Research Summary #9.
7. Renate Nummela Caine and Geoffrey Caine, *Making Connections: Teaching and the Human Brain.* Old Tappan, N.J.: Addison-Wesley Longman, Inc., 1994, pp. 109–11.
8. D. V. Einder and H. L. Bishop, "Block Scheduling the High School: The Effects on Achievement, Behavior, and Student-Teacher Relationships," *NASSP Bulletin* (May 1997), 45–54.
9. Bonnie Benard, *Turning the Corner: From Risk to Resiliency.* Portland, Ore.: Western Regional Center for Drug-Free Schools and Communities, 1993.
10. Jim Grant and others, *The Looping Handbook: Teachers and Students Progressing Together.* Peterborough, N.H.: Crystal Springs Books, 1996.

11. Joan Gaustad, "Implementing Looping," *ERIC Digest 123* (December 1998). Available on the Web site <*http://www.eric.uoregon.edu/publications/digests/digest123.html*>.
12. *The Class-Size Reduction Program: Boosting Student Achievement in Schools Across the Nation.* Washington, D.C.: U.S. Department of Education, 2000. Available on the Web site <*http://www.ed.gov/offices/OESE/ClassSize/reports.html*>. Links to state and national research and reports on class size reduction may be found on <*http://www.ed.gov/offices/OESE/ClassSize/research.html*>.
13. Morgan-Hart Class Size Reduction <*http://www.cde.ca.gov/hart*>. Visit this site for information on class size reduction programs for ninth-grade English and one other subject chosen from mathematics, science, or history–social science.
14. J. O'Neil, "Finding Time to Learn," *Educational Leadership,* Vol. 53, No. 3 (1995), 11–15.
15. M. D. Rettig and R. L. Canady, "All Around the Block: The Benefits and Challenges of a Non-Traditional School Schedule," *The School Administrator,* Vol. 8, No. 53 (1996), 8–15.
16. R. L. Canady and M. D. Rettig, "Unlocking the Lockstep High School Schedule," *Phi Delta Kappan* (December 1993), 310–14.
17. Linda Wyatt, "More Time, More Training," *The School Administrator,* Vol. 53, No. 8 (1996), 16.
18. Stephen R. Covey, *The Seven Habits of Highly Effective People.* New York: Simon and Schuster, 1990, pp. 96–182.
19. A discussion of the *National Standards for School Counseling Programs* may be found on two Web sites: <*http://www.ca-schoolcounselor.org/natl.htm*> and <*http://www.schoolcounselor.org/*>.
20. For additional information visit the California Department of Education Web site <*www.cde.ca.gov/spbranch/ssp/tenth_grade.pdf*>.
21. A thorough description of student-led conferences is found in "Student-Led Conferences at the Middle Level" <*http://www.ed.gov/databases/ERIC_Digests/ed407171.html*>; a video titled "Student-Led Conferencing" is available for purchase from CDE Press (Item 1286), telephone 1-800-995-4099; Barbara Benson and Susan Barnett, *Student-Led Conferencing Using Showcase Portfolios.* Thousand Oaks, Calif.: Corwin Press, 1999; Terri Austin, *Changing the View: Student-Led Parent Conferences.* Portsmouth, N.H.: Heinemann Publishers, 1994.

8

Promoting Family and Community Supports for Student Success

High schools are faced with the task of significantly raising achievement for *all* children. The best efforts during the last quarter century have made only minor headway; therefore, it is clear that the collective minds, hearts, and hands of the entire school community are needed for children to be successful.

Schools must form active alliances with families, employers, community members, and policymakers to promote student learning and ensure accountability for results. These alliances and partnerships are absolutely key to the effective implementation of standards-based education.

To provide students with an opportunity to learn and offer them every possible method to master the academic standards, California high schools must go the extra mile. It is no longer good enough to have a single safety net; several levels of support are now needed. Because families and communities have a significant stake in *all* students becoming highly educated graduates, they receive the support necessary to assist students. In this chapter the term *families* includes guardians, nontraditional families, and other adults acting on behalf of the child *in loco parentis*.

Making Families as Partners a Reality

Research has proven a strong connection between family involvement and student achievement.[1] However, despite this knowledge, high schools continue to operate without much family involvement and support. Of course, there are reasons for the lack of family involvement—teens pushing away from families, families feeling threatened by course content beyond their expertise, the time pressures faced by growing numbers of single-parent families, and painful memories of families' own less-than-successful high school experiences. Educators, however, can either look for reasons to explain poor family involvement in the past or work to increase family involvement. Some of the following ideas may be helpful:

Help all families in supporting their children's maximum achievement. Americans of all socioeconomic, racial, and cultural groups share the hope that their children will complete both high school and post-secondary training or education.[2] But most families do not know how that education will relate to the global labor market in which their children will compete. Not many are aware of the options for this training and education or the costs and financial aid available.[3] Certainly, all families must receive information about the *California High School Exit Examination (CAHSEE)*.[4]

Educators have an opportunity to satisfy families' need to know (and the legal requirement to inform families) about *CAHSEE*[5] and to do much more. They can:

- Provide information about the future labor market; projected high-growth, high-wage industries; the realities of demographic factors in relation to future jobs and income; and other issues dealing with children's future employment.
- Discuss the relationship between education and the labor market, specifically what kind of postsecondary education and career preparation future jobs will require.
- Review postsecondary education and career preparation options: traditional classroom, online instruction, private and public schools,

part-time student, full-time student, nontraditional, the military, or the Job Corps <*http://www.jobcorps.org/main.htm*>.
- Give details about application procedures for postsecondary education, careers, and financial aid.

There are several delivery modes to consider, but the reality is that schools, like students, no longer get points for just trying hard. Limited time and resources need to be devoted to the most productive outreach methods possible. One approach is to combine a *CAHSEE* and college information fair with the annual event that most successfully draws families: student-led conferences or exhibitions. If 15-minute information sessions on various topics coincide with and wrap around the student-led conferences, families can move in and out of short, informative presentations. Families use an information fair map to collect a given number of signatures from presenters who sign the map for a door-prize drawing at the end of the session.

Other delivery modes include family education courses, audio- and videotapes created by students in career-technical classes, hard copy and online newsletters, an informative Web site, and a telephone/fax/e-mail tree. Schools should consider the percentage of families and the likely population targeted for each outreach mechanism to ensure that the different approaches are not all serving the same families.

Programs such as GEAR UP provide extensive funding support for family education and outreach. Middle schools apply in partnership with a local college, a high school, and at least two other community entities. To qualify, the middle school must have 50 percent or more of its students eligible for free or reduced-priced meals. For more information, visit the national GEAR UP Web site <*http://www.ed.gov/offices/OPE/gearup/*> and the site for the California GEAR UP program <*http://www.castategearup.org*>. AVID also has a strong family involvement component that may be viewed on its Web site <*http://www.avidcenter.org/*>. The federal government provides parent information booklets on preparing children for college beginning in middle school and continuing through grade twelve; see <*http://pfie.ed.gov*>.

Raise the bar for family involvement. Title I high schools are required to create a "school-family compact" that spells out the responsibility of the student, the school, and the home in relation to student achievement. The U.S. Department of Education has published a new guidebook titled *A Compact for Learning: An Action Handbook for Family-School-Community Partnerships.*[6] It assists schools in building effective, workable family-school compacts that focus on increasing student achievement.

A guide produced by the California Department of Education titled *Family-School Compacts* answers basic questions about the purpose, design, and adoption of compacts and provides supplemental materials, including a bibliography of relevant research and samples of compacts.[7] This type of contract could become the norm for all California high schools in the quest to promote student achievement by raising the bar for family involvement.

What elements might be included in a family involvement contract? Most high school contracts encourage families to discuss school and to review course work with their child. Some contracts include clauses about ensuring the child has adequate sleep, nutrition, and quiet time for study. Although these are important elements, the school's ability to follow up on any of them is minimal.

A compact might also have some real requirements for families. For example, schools may include any or all of the following items as concrete expectations of families:

- Participate in the annual student exhibition or student-led conference (all communications about the student-led conferences or exhibitions are to remind families of their commitment).
- Review and approve the student-developed Graduation Career and Academic Plan (CAP) twice a year.
- Provide at least five hours of volunteer service a year or the equivalent in goods.

The compact might also call for families to assist their children at home with personal quality Expected Schoolwide Learning Results (ESLRs), such as sociability, integrity, and honesty. Formal instruction need not be done; instead, families teach by example, helping children with issues such as resource management or reasoning in problem solving.

These options may raise some eyebrows. *Requiring families to attend sessions at school and do volunteer work? Could this possibly work?* The answer is yes—if the infrastructure exists to make it happen.

Imagine the typical high school parents' club or Parent-Teacher Association. A dedicated group of parents actively supports a broad spectrum of school activities. The only problem is that the core group consists of 20 parents, and they are often burned out after a few months.

What if this group's focus were to change from *doing* the work to *organizing* the outreach campaign to solicit help from all families? If each core member called 12 different families once a month asking them to help with some tasks, the school would quickly establish the culture and expectation of family involvement—and benefit from hundreds of hours of volunteer time. School staff needs to create detailed volunteer task descriptions that are maintained in the office so that volunteers can come in, pick up their job description and resources, and begin work. For example, one Saturday a month might be dedicated to campus cleanup and computer maintenance, with the head custodian and network administrator adjusting their hours to provide oversight, if possible.

Make the policymaking process accessible. Frequently, high school administrators complain that they cannot find families to serve on advisory boards. However, some schools have no difficulty because they reach out to families. Those schools provide families with background information on the school itself and on advisory groups and provide accommodations and ongoing support. Outreach may be as simple as meeting with a family core group, identifying potential participants from people they know, and either contacting the prospects personally or asking one family to contact another family. Alternatively, the core family group might call a list of prospective members submitted by faculty and staff. Although this effort may initially be insular (and will need, of course, to be monitored for racial and ethnic balance), the circle will soon widen to include the vast majority of families, if not all of them.

Background information on the school and advisory groups is essential for family members joining an ongoing policy-level group. If members have to spend the first six months of meetings figuring out what is going on, only the hardiest members will stick with the effort. A guide that is written in concise, plain language and illustrated with graphs and charts can convey the background information and be a tremendous resource for newcomers. Obviously, providing accommodations, such as language translators or accessible spaces for persons with disabilities, is essential.

Ongoing support is probably the single most important element in retaining families in school advisory groups. Pairing every newcomer with an old-timer "buddy" from a similar cultural or linguistic background eases the transition into the group. Two people may also share one position in an advisory group so one parent can cover for the other in case of other commitments, and the two can support each other's continued participation.

Involve individual families with their children. When a family's involvement with their own child is the issue, interventions, such as the student success team (SST) process, provide excellent tools to help.[8] If the SST is not effective because of the student's attendance or behavior problems, *Education Code* Section 48320 provides for "intensive guidance and coordinated community services" through the School Attendance Review Board (SARB) process.[9] For the most difficult cases of problem attendance or behavior, SARB provides a powerful alliance of families, district-level officials, the county probation department, the county welfare department, law enforcement agencies, community-based youth service centers, school guidance personnel, and child welfare and attendance personnel to ensure collaboration and accountability.

Forging Strong Partnerships with Postsecondary Educational Institutions

This section examines the ways in which strong partnerships with postsecondary educational institutions can increase student success in standards-based education.

Colleges and universities have everything to gain from partnering with high schools to ensure that graduates are well prepared for postsecondary education. Preparation begins with student mastery of high academic standards. Colleges have a stake in federal programs that provide greater funding for work-study students if they are tutoring in K–12 programs, especially if they tutor low-income or underrepresented minority students.

The U.S. Department of Education also sponsors the Trio Programs, two of which—Talent Search and Upward Bound—provide significant tutorial and other kinds of assistance for students who are members of underrepresented minority groups or potential first-generation college graduates. To launch these programs, competitive grants are submitted by partnerships of high schools and local community or four-year public or private colleges. The Web sites of Trio Programs <*http://www.trioprograms.org/*>, Talent Search <*http://www.ed.gov/offices/OPE/HEP/trio/talent.html*>, and Upward Bound <*http://www.ed.gov/offices/OPE/HEP/trio/upbound.html*> provide further information. GEAR UP, discussed previously, also offers tutorial support.

Colleges may have other programs that support a high school's quest for excellence.

College Classes on High School Campuses

High schools may consider the option of requiring students to complete one or more college-level classes for high school graduation. There are several advantages to this option: the requirement challenges students to do higher-level course work without imposing the high-stakes (and sometimes restrictive) testing inherent in *Advanced Placement (AP) Examinations;* it saves families' future college costs and students' time in college; it demonstrates to students that they have what it takes to be successful in postsecondary education; and it may result in immediate student access to the advantages of a fully matriculated college freshman (e.g., preferential scheduling). Even if they are not a graduation requirement, college-level classes on the high school campus can add breadth (e.g., astronomy and psychology) or depth (e.g., Spanish 5 or Shakespeare) to the curricular offerings.

Partnerships in Certificate Programs

Several California high schools and community colleges have partnered to offer course work for a particular certificate, and some courses are offered at each campus. California high schools offer networking certification in collaboration with local community colleges and provide most of the college-level courses on the high school campus.

3-1-3 Programs

These programs offer three years of high school followed by a year of high school-college transition and three years of college, resulting in both a high school diploma and a bachelor's degree. Some four-year colleges may have such a program or may initiate one in the near future.

Middle College Programs

Middle College is a high school program held on a community college campus. High school juniors and seniors are screened and admitted to the program, which is sometimes a magnet and sometimes an alternative for youths at risk of academic failure. Examples of Middle Colleges in California may be viewed on the San Mateo Middle College High School Web site <*http://www.smccd.net/accounts/smmchs/*> and on the national Middle College High School Consortium Web site <*http://www.mcconsortium.org/maind.htm*>.

Offering Wraparound Tutorials

Not all tutoring needs can be met by a tutorial or by programs from colleges and universities that provide underachieving students with tutors. Fortunately, many other school community models use other groups of students and adults to meet tutoring needs.

All programs using tutors outside the school should consider doing as follows:

1. Determine exactly what you want the tutors to do. Providing direct instruction and coaching in a particular standard or a part of a standard by using carefully selected materials will result in a much different outcome than will an assignment to "help with homework."

2. Stress the need for consistency and ask tutors to commit for a year of service. Do not worry about scaring potential tutors away; commitment is essential.
3. Ensure that all external tutors are screened and have full fingerprint clearance before they begin service.
4. Provide instruction in the tutoring program and how to tutor. The most successful tutoring programs provide a sound foundation in general protocol and the specific tutoring approach or system being used. Tutors should know what activities to do and for how long.
5. Provide follow-up, support, and monitoring. Tutors will have many questions, so you will need to devise a fairly simple means of communication. Keeping a journal, corresponding through e-mail, or maintaining a Web-based "Frequently Asked Questions" file are ways of communicating. Having informal, face-to-face brush-up sessions and thank-you celebrations will help retain community volunteers in the program.
6. Have volunteers keep records, including volunteer days and hours, materials covered, and student responses; a journal format will be sufficient.
7. Have students keep folders for work completed and any interim assessments. The program coordinator should review these folders frequently, along with volunteer tutor notes.
8. Pair volunteers on the buddy system. Two volunteers who tutor the same two students can cover for each other in case one is absent.
9. Look for tutors who can communicate in the home languages of English learners.

Some types of school community tutoring programs are described below:

Peer Tutoring

High school students get a chance to help one another. The process works well with carefully targeted goals, such as mastery of a single standard. A peer tutoring class is particularly helpful, providing student tutors with strategies and materials.

Many schools run peer tutoring classes like work experience classes, meeting only during lunchtime once a week to provide access for as many students as possible. Students get unit credit for carrying out their peer tutor assignments, as documented by journals, regardless of the formal time in class. Additional information on peer tutoring and cross-age tutoring is available on the Northwest Regional Laboratory Web site *<http://www.nwrel.org/scpd/sirs/9/c018.html>*.

Cross-Age Tutoring

College students tutoring high school students is the model for Talent Search and other college tutoring programs. Research indicates that lower-achieving high school students can work as cross-age tutors for struggling middle school students and substantially raise their own test scores as well as those of the tutees.[10] More than half of the mathematics standards on *CAHSEE* are middle school standards; therefore, cross-age tutoring is an interesting strategy to explore. Cross-age tutoring might be a required part of a parallel class in which students learn a skill in class and then work in pairs to tutor a middle school student in the same task. Cross-age tutoring classes may be offered in the same way as work experience classes.

Intergenerational Tutoring

Underachieving high school students may not always be receptive to tutoring opportunities. Many retired people and senior citizens are able to provide the time and patience needed for some students. High school students tend to demonstrate much more respect for seniors than for those who look as though they might be parents or teachers. Retirement communities in which active seniors live independently are a likely source of tutors.

Release-Time Tutoring

For this kind of program, local businesses usually match one hour of paid release time for every hour an employee contributes in tutoring. The school secures from businesses, agencies, and organizations a commitment to provide the match and the right to recruit tutors among employees. Businesses and government agencies often have a quota of community service contributions, and release-time tutoring is a good way for them to meet that commitment. The Family-School Partnership Act allows many parents to take time off to participate in their children's school activities.[11]

Developing Community Partnerships for Support

For school–community partnerships to come of age, educators must be frank with potential partners about the need to focus on student mastery of state content standards. The incredible value of community partnerships is well worth the effort. Research corroborates that active alliances with families and the community can increase student achievement and so can real-life experiences related to careers. The following discussion concerns community partnerships that are closely tied to the school and school district and focus on career preparation.

Workforce Investment Act Youth Programs

Workforce Investment Act (WIA) youth programs are funded through the local Workforce Investment Board for low-income youths. Those programs are usually operated by the school district and are not just job programs. The law requires that participants complete both education milestones and work hours—a golden opportunity-to-learn option.

The administrators of WIA youth programs are willing to include state standards and local outcomes in a student's preemployment competency training. However, in the past, the alignment of the WIA youth employment education component with the students' school program often has been minimal or nonexistent even when the employment program was operated by the school district. Taking the following simple steps can create a direct link between the two programs:

- Require students to provide a copy of their Graduation CAP as a part of the youth employment application process.
- Share school site-developed materials with the youth employment provider.
- Work with the provider to ensure that students have opportunities to demonstrate mastery of standards and outcomes during their participation in the youth employment program.

With a direct link in place, youth employment can become a powerful delivery system to assist economically disadvantaged students in mastering state academic content standards.

Work Experience Education (WEE)

California *Education Code* Section 10071 describes two types of paid work experience education: vocational and general. Vocational WEE requires vocational learning; general WEE requires instruction in the basic skills of reading, writing, and computation. Both require related classroom instruction.

Both types of WEE must include standards-based academic instruction if students are to benefit from the program. Work experience programs that are tied to vocational instruction (e.g., the regional occupational centers/ programs or Tech Prep programs) are more likely to integrate academic and vocational learning. However, most general WEE programs have not operated with this focus. If all California students are to master high academic standards, all work experience programs need to use the real-world context to teach and reinforce content standards.

As the school clarifies its mission with the community, employers will understand the need to include one or more state academic content standards in the work experience agreement. The academic standards chosen are more likely to be such items as Writing Strategies Standard 1.2 ("Use precise language, action verbs . . . and the active . . . voice") and Number Sense Standard 1.2 ("Add, subtract, multiply, and divide rational numbers") than standards with more esoteric requirements. If students have mastered the more basic standards, schools should include local outcomes.

Employers are very clear about the importance of most local outcomes to success on the job. They tend to be more interested in entry-level employees' abilities to work with others, acquire and use information, and plan and carry out a course of action to solve a problem than they are about students' knowledge of specific academic content. Therefore, employers are generally more than willing to help students in understanding ESLRs and in demonstrating mastery of local outcomes on the job.

Service-Learning

This complex but effective teaching strategy requires the collaboration of educators and community partners. As the term implies, students provide service for the community. In return they learn about citizenship and the ways in which academic content standards connect to the real world. State Superintendent of Public Instruction Delaine Eastin describes some examples of service-learning in California schools in the introduction to *Service-Learning: Linking Classroom and Communities:*

> I met students who were restoring streams and rivers; tutoring younger students and peers in reading and mathematics; and nurturing school gardens to provide fresh vegetables to needy people, including those in homeless shelters and the elderly. I saw industrial arts students building a house for the doctors who traveled long distances to work at a rural community hospital.[12]

School-Based Enterprises

School-based enterprises are an excellent way for community and faculty advisers to deliver state standards and local outcomes that can be built into the business.

School-based enterprises are also a safe arena in which students can learn about ESLRs, such as responsibility or self-management. Junior Achievement, Inc., helps high school students in establishing homegrown business ventures and by providing standards and local outcome instruction along with the training. More information may be found on the Junior Achievement Web site <*http://www.ja.org/*>.

School-based enterprises may be as far-ranging as exporting caviar to Japan or as local as selling chocolate chip cookies to the PTA and district administrators. Information about sample enterprises may be viewed on the Sonoma State University Web site <*http://www.sonoma.edu/cihs/html/cihsmain/highschoolreform.htm*>.

Career-Technical Student Organizations

Career-technical student organizations engage students in developing leadership and interpersonal skills through service, scholarship, enhanced technical skills, and citizenship activities. By focusing on the knowledge, skills, and attitudes necessary for career and personal success, these organizations require and receive strong family and community involvement in such activities as serving as judges of student performance, organizing booster groups, donating recognition awards, and serving as volunteer coaches and mentors. Information about career-technical student organizations may be viewed on the U.S. Department of Education Web site <*http://www.ed.gov/offices/OVAE/VocEd/WebLinks/vso.html*>.

Programs for Students with Disabilities

The community may also support a variety of transition programs for students with disabilities, and most of these programs include assistance with academic and work skills (e.g., WorkAbility, Transition Partnership Program, local sheltered work experience options, and other opportunities). These programs are often operated in conjunction with the Department of Rehabilitation (DOR) or one of DOR's 29 independent living centers (<*http://www.dor.ca.gov*>). The academic skills included may focus on those state standards the student finds most challenging, and local outcomes may be taught and demonstrated through these transition programs.

Working with Families and the Community

Schools no longer have a choice between doing the right thing and doing things right. They must do both if they are to support all students in the mastery of high academic standards, and they must use every possible resource to do so. Many opportunity-to-learn options are presented in this chapter so that schools can work with families and the community to improve student achievement and strengthen standards-based instruction and assessment. The high school community needs to create and implement a strategic plan incorporating those strategies that best meet local needs and circumstances. It must drive boldly into the future rather than move with one foot on the brake and both eyes on the rearview mirror.

The threat of failure must not deter educators. Communities must be prepared for the fact that every effort will be exerted; educators need to acknowledge that some interventions may be more effective than others. In this new era of high-stakes accountability, it is essential for schools to boldly explore and capitalize on the wealth of family and community resources that can aid in the mission of increasing student achievement.

Notes

1. *A New Generation of Evidence: The Family Is Critical to Student Achievement.* Edited by Anne T. Henderson and Nancy Berla. Washington, D.C.: National Committee for Citizens in Education, 1994. This report covers 66 studies, reviews, reports, analyses, and books. Noting that a predictor of student achievement is the extent to which the family is involved in his or her education, the editors present research papers on the importance of family to a student's success and education in school and the community.
2. "Hard Work and High Expectations: Motivating Students to Learn." Washington, D.C.: U.S. Department of Education, 1992. Available on the Web site <*http://npin.org/library/pre1998/n00256/n00256.html#intro*>.
3. *Preparing Your Child for College: A Resource Book for Parents.* Washington, D.C.: U.S. Department of Education, 1996. This planning tool for parents may be downloaded from the Web site <*http://www.ed.gov/pubs/Prepare/*>.
4. School districts are required to send an annual notification about *CAHSEE* to parents, guardians, and students at the beginning of the first semester or quarter of the regular school term. Further information may be obtained on the Web site <*http://www.cde.ca.gov/statetests/hsee/hsee2.html*>.
5. *Parent Notification Assistance Packet for Districts and Schools* may be downloaded from the Web site <*http://www.cde.ca.gov/statetests/hsee/HSEE.Notif.Pkt.pdf*>.
6. *A Compact for Learning: An Action Handbook for Family-School-Community Partnerships.* Washington, D.C.: U.S. Department of Education, 1997. Available on the Web site <*http://www.ed.gov/pubs/Compact/*>.
7. *Family-School Compacts* may be downloaded from the Web site <*http://www.cde.ca.gov/fc/family/compacts.html*>. It is also available for purchase from CDE Press. Ordering information may be found on the Web site <*http://www.cde.ca.gov/cdepress/presorder.html*>, or call (916) 445-1260 or 1-800-995-4099.
8. *SST: Student Success Teams.* Santa Cruz, Calif.: California Dropout Prevention Network, 2000. The network provides this publication with a compact disk containing forms and tools. To order a copy contact the California Dropout

Prevention Network Office at Education Alliance, 122 Library Lane, Santa Cruz, CA 95062; telephone (831) 425-0299; FAX (831) 425-1244.

9. *School Attendance Review Board Handbook.* Sacramento: California Department of Education, 1995.
10. Page Kalkowski, "Peer and Cross-Age Tutoring," *School Improvement Research Series,* Close-Up #18 (March 1995). Portland, Ore.: Regional Educational Laboratory. Available on the Web site <*http://www.nwrel.org/scpd/sirs/9/c018.html*>.
11. AB 2590, Ch. 1290, Stats. 1994. The Family School Partnership Act may be viewed on <*http://www.leginfo.ca.gov/pub/93-94/bill/asm/ab_2551-2600/ab_2590_bill_940930_chaptered*>.
12. *Service-Learning: Linking Classrooms and Communities.* Sacramento: California Department of Education, 1999, p. v. Available on the Web site <*http://www.cde.ca.gov/calserve/taskforcereport.htm*>.

9

Developing Academic Literacy for Student Success

California's diverse student population includes more than 1.5 million English learners. Over 39 percent of California's public school students have a primary language other than English, and about 25 percent are not yet fluent in English. The languages most commonly spoken by English learners are Spanish, Vietnamese, Hmong, and Cantonese.

Although English learners at the intermediate and higher levels may be proficient in basic, everyday English-language skills, both English learners and native English speakers frequently lack *academic language* proficiency. Academic language, the language of "books, tests, and formal writing," differs from conversational speech in terms of "language function, vocabulary, background knowledge, text structure, syntactic complexity, and abstract thinking." Academic language represents a much higher level of literacy than does conversational language; it is a level of literacy necessary to fully develop complex thinking skills within a given language.[1]

Without academic literacy in English, many California students will face great difficulty mastering academic standards. This situation is especially true for English learners at the high school level. English learners may lack the specialized subject-matter vocabulary and the other attributes of academic language needed to master rigorous high school standards. These learners frequently require focused instruction to attain academic language proficiency.

English–Language Development Standards

In 1997 the California State Board of Education adopted English–language arts content standards that define what all California students, including English learners, are expected to know and be able to do. Then in 1999 the State Board adopted *English-language development standards* to ensure that English-language development (ELD) is occurring appropriately for all students, including English learners who enter school in kindergarten through grade two, those who enter in grades three through twelve who are literate in their primary language, and those who enter in grades three through twelve who are not literate in their primary language. Students who enter California schools in grades three through twelve who are not literate in their primary language must be taught the ELD standards that address literacy, including the standards related to phonemic awareness, concepts of print, and decoding skills. The ELD standards are available on the CDE Web site <*http://www.cde.ca.gov/statetests/celdt/eld_grd_span.pdf*>.

The ELD standards define the skills necessary for English learners to build incrementally toward mastery of the state English–language arts content standards and are written as benchmarks to the standards. To ensure that all English learners achieve proficiency in the English–language arts standards, teachers must use both sets of standards in tandem. For example, the English–language arts Reading Standard 1.0 for grades nine through twelve is as follows: "Students apply their knowledge of word origins to determine the meaning of new words encountered in reading materials and use those words accurately."[2]

Before English learners can master this standard, they must first master the ELD standards for grades nine through twelve:

- Use a standard dictionary to derive the meaning of unknown vocabulary.

- Recognize simple idioms, analogies, and figures of speech in literature and content area texts (e.g., "the last word").

The English–language arts and ELD standards have also been used to develop the *California English-Language Development Test (CELDT).* This test is used annually in grades two through twelve to assess English learners' proficiency in listening, speaking, reading, and writing in English. The *CELDT* results are part of the process of reclassifying students to fluent English proficient.

English–Language Development Courses

English-language development is critical for all English learners from beginning levels to advanced levels of English proficiency. ELD courses provide intensive, systemic instruction in oral and written language, individualized instruction, and additional assistance that supports the acquisition of informal English and teaches the patterns of formal academic English. Frequently, English learner high school students languish at the intermediate level of proficiency without making significant progress and without ever reaching the more advanced levels of English proficiency that allow full participation in the core curriculum. *Specially designed academic instruction in English* (SDAIE), *scaffolding*, and other pedagogical techniques discussed below will certainly help students to learn grade-level content in the core curriculum. However, these are *techniques* that support student learning; they are not replacements for a well-designed ELD program.

Once the English learner is past the beginning level of English proficiency, ELD courses should be provided in addition to regular English course work. This approach should be taken at least at the intermediate level and certainly when the student is close to being designated *fluent English proficient*.

For students at the intermediate level or higher, researchers have called for a new emphasis on direct instruction of English-language concepts and features, increased practice of complex English skills, and corrective feedback that models proper spoken and written language. Higher-level

ELD students need explicit instruction and practice in using advanced sounds and sound changes, word formation, clauses and phrases, sentence structures, and selection of words to evoke a specific reaction.[3]

Although a fully credentialed teacher of a regular English course can deliver that type of instruction, a teacher with Cross-cultural, Language, and Academic Development (CLAD) certification or equivalent authorization would be best qualified to do so. However, because high schools may have a shortage of CLAD-certified teachers, sites may consider having students at the higher level of English proficiency enroll in a regular English course taught by a non-CLAD-certified teacher and choose one of the following options:

- Continue to take ELD as a parallel course until the student is designated fluent English proficient.
- Get ELD instruction and receive credit for a support course during a tutorial session.
- Take the ELD course in Saturday school.
- Co-enroll in the adult school's ELD course.
- Enroll in an ELD course online for credit, with support from a CLAD credentialed teacher on site.

Schools with numerous English learners usually provide many more options and flexible course structures than do schools with smaller numbers of English learners. Options may include levels of ELD, sheltered English courses in the content areas, targeted tutorials, and so on. Schools with fewer English learners must build the flexibility of response into existing class and course structures; for example, by providing differentiated learning in a single classroom.

Another issue facing high schools with English learners is referral for reading intervention. If students are already literate in their home language when they enter school but experience difficulties reading in English, they are less likely to require a reading intervention than are students who lack literacy in either the primary language or English. If students are not literate in either their home language or English when they enter school, a qualified individual (e.g., a CLAD-certified teacher) should determine whether a reading intervention is required.

Research is focusing on the specific issues English learners face in a standards-based educational system. "Implementing Standards with English Language Learners: Initial Findings from Four Middle Schools," published by the Northeast and Island Regional Educational Laboratory at Brown University, and many other resources are available from the Center for Applied Linguistics <*http://www.cal.org*>.

SDAIE, Scaffolding, and Standards

Specially designed academic instruction in English increases academic literacy for students of all levels of English proficiency when the primary goal is language development. It calls for teachers to model proper language usage (e.g., by using illustrations, demonstrations, and nonverbal language) to evoke meaning and to monitor and frequently check students' proper language usage.

This form of instruction and a standards-based educational system are complementary. The basic steps of implementing standards in the classroom resemble the SDAIE approach in the following ways:

- Both rewrite the standards in student-friendly language, defining and illustrating key terms, to ensure that every student understands the learning goal.
- Both use rubrics or other benchmarks as an assessment tool to clarify the level of required performance for every student.
- Both promote active learning strategies designed to reinforce conceptual learning (e.g., project-based, cooperative, and "real world" learning).
- Both routinely ask students to refine and improve their work to bring it closer to the proficient level so that every student can learn from teacher and peer feedback.
- Both provide samples of student work at the proficient or exemplary level to enable every student to envision a product that meets the standard.
- Both require that instruction consider language, content, and the cognitive process involved in the learning task.

Developing student proficiency in academic language is closely linked to providing *all* students with equal access to the most valued curriculum. SDAIE allows teachers to present rigorous academic content to all students by *scaffolding* instruction for increased complexity in language usage and conventions based on the teachers' knowledge of the students' levels of proficiency.

Scaffolding is "the temporary support, guidance, or assistance provided to a student on a new or complex task,"[4] but it does not simplify the task. Scaffolding holds the task difficulty constant while simplifying the student's role by means of graduated assistance from someone who understands and can successfully complete the task.

Scaffolding in a Standards-Based Educational System

Scaffolding for task or assignment complexity is inherent in a standards-based educational system and helps ensure that all students are taught the information and skills they need to do well on the assessment. Key components of scaffolding are as follows:

- Teachers use students' prior knowledge and skills to provide a *bridge* between known and unknown concepts.
- Teachers clarify and *contextualize* abstract concepts by using pictures and manipulatives and by creating analogies or metaphors based on the students' experiences.
- Teachers help establish connections between and across concepts that appear unrelated to the students. Students gain perspective on where ideas fit in the larger context (i.e., *schema building*).
- Teachers encourage students' *presentation* of concepts being learned through various modes, including oral, written, and visual formats.
- Teachers involve students in activities that promote monitoring their own learning.
- Teachers *model and demonstrate* skills and provide support at key points in a lesson to assist students in understanding new ideas and strategies. The frequency of modeling and demonstrating depends on the students' needs.

Scaffolding becomes even more important for English learners as tasks and assignments become more complex and language dependent. Having English learners complete a work sheet or copy notes from the board is not a complex task or assignment, nor does it require complex levels of language between students and teacher and between students and peers. Having English learners collect and analyze data and present the results of the data represent complex tasks and assignments.

Steps for Implementing Standards by Using Scaffolding

The first step in a standards-based educational system is to *select and analyze the standard(s) to be met*. For example, a health education teacher may work with a mathematics teacher to select and analyze the following Statistics, Data Analysis, and Probability standards to be met through the health course:

- (Grade Six) Mathematics Standard 1.1: Compute the mean, median, and mode of data sets.[5]
- (Grade Seven) Mathematics Standard 1.2: Represent two numerical variables on a scatterplot and informally describe how the data points are distributed and any apparent relationship that exists between the two variables.[6]

The second step in a standards-based educational system is to *design or select an assessment through which students can demonstrate mastery of the standard.* To address this step, the mathematics teacher and two health education teachers working with the ELD instructor devise the assessment "The Gift Horse Project" as a part of a unit on dental hygiene.

Note: This assignment also addresses the Expected Schoolwide Learning Result (ESLR) that all students can demonstrate basic skills in the use of computer software. This ESLR is linked to the state mathematics standards listed above.

The Gift Horse Project

An old adage says, "Don't look a gift horse in the mouth." Because one may determine the age of a horse by the condition of its teeth, closely examining a gift may well reveal its flaws. What about human beings? Does the condition of people's teeth, especially in high school, reflect their age? Or does it show a pattern of dental hygiene? Does the condition of people's teeth vary by gender? Does race or ethnicity make any difference? Or individual genetic patterning? In other words should one's rotten teeth be blamed on one's biological parents, bad brushing habits, gender, or adolescent hormones?

Those are some of the questions that will be answered in the Gift Horse Project. Teams of two students will do the following activities:

1. Interview 20 high school students. Gather the following data:
   a. The student's age, gender, race, or ethnicity
   b. Number of dental fillings
   c. Number of times he or she brushes per week
   d. Number of trips to the dentist in the last two years.

   You cannot interview anyone who has been interviewed previously.
2. Compute the mean, median, and mode of these data sets:
   a. Age of the interviewees
   b. Number of fillings
   c. Number of times they brush per week

   Can you draw any conclusions about (a) the relationship of age to the condition of the teeth; and (b) the relationship of the condition of teeth to dental hygiene (number of times brushed)? Mark the data that show no trend or pattern leading to a conclusion.

3. Use a spreadsheet or graphing program to create scatterplots for further analysis:
    a. Use age and number of fillings on one scatterplot and number of fillings and number of times the student brushes his or her teeth per week on another scatterplot. Can you draw any conclusions about the relationship of either age or dental hygiene to the condition of the teeth?
    b. Place gender and number of fillings on one scatterplot and race or ethnicity and the number of fillings on the other. Can you find a trend or pattern that shows a clear link between variables? Are there any other explanations for the trends or patterns?
4. Write your findings in a 250-word paper, using a word processor, that tells what you did—the interviews, the calculations, the graphing—and what you concluded from the data. Your last sentence should be in boldface type and begin with the following statement: "Therefore, we conclude that the condition of teenagers' teeth may be most seriously affected by ____________."

    On a second piece of paper, use spreadsheet software to present the relevant data to support your conclusions.
5. Put the findings and the relevant data on a poster board. Turn in separately any data not relevant to your conclusions. Each class will choose two or three posters for display in local dental offices.

The third step in a standards-based educational system calls for teachers to *identify what students must know and be able to do to perform well on the assessment and to demonstrate mastery of the standards.* **Scaffolding begins at this point.** By first identifying what students need to know—the background skills, knowledge, and vocabulary—teachers pinpoint what must be taught and *scaffolded,* as needed. See Table 5 for the skills and knowledge necessary to do well on the assessment.

BEST COPY AVAILABLE

Table 5 Skills and Knowledge Required for the Gift Horse Project

Skills	*Knowledge*
• How to interview and take notes • How to figure the mean, median, and mode of data sets and how to find trends or draw conclusions from these data • How to use scatterplots to graph data and how to find trends or draw conclusions from these graphs • How to use word processing and spreadsheet software programs • How to write a paper	• Relationship of dental hygiene to the number of fillings • Definition of the following terms: *data, variables, clusters, trends, random, related, conclusion, confidence, scatterplot* • The issues raised by lack of dental care in relation to the validity of the data on number of fillings • The effect of variables in a study • The meaning of the adage "Don't look a gift horse in the mouth."

The fourth step of a standards-based educational system is *to plan and deliver lessons providing all students with adequate opportunities to learn and practice the necessary skills or knowledge*. This step is especially important for teachers of English learners. Using SDAIE strategies and scaffolding techniques, and supported by the ELD program, teachers can build in the appropriate learning opportunities for all the skills and knowledge required to successfully complete the assignment. For example, to *scaffold* the part of the assignment that calls for skill in "How to use scatterplots to graph data and how to find trends or draw conclusions from these graphs," teachers may do as follows:

- Define a scatterplot by using illustrations.
- Present model data sets with graphs based on the data and point out the relationship between them.
- Use the same data sets and blank graphs to translate numbers to data points on the graphs.
- Use the same data sets or graphs to look for trends or clusters.
- Present a data set for students to graph and analyze.
- Assess readiness and reteach the whole class or small groups, as needed.

In the Gift Horse Project, other subject area teachers support the health education teachers with the targeted mathematics standards. The mathematics teachers can help with mathematics-related scaffolding. English department faculty may assist by doing the scaffolding required to produce the paper. For example, the English teachers may decide to divide the paper into three parts: purpose, narrative account (the step-by-step process), and conclusions. For each section the teachers can produce a step-by-step student guide that provides varying levels of assistance (e.g., describing the type of information required in each section for the students with good writing skills) with sentence lead-ins and transitions for those sections needing the most support. The mathematics example described in this chapter provides scaffolding for the whole class. Inherent in this example is the importance of identifying the assistance needed for each student to successfully complete the task.

A source of hands-on materials, including SDAIE-based lesson plans, is the National Council on Bilingual Education <*http://www.ncbe.gwu.edu*>. The council also has online the proceedings of the "Third National Research Symposium on Limited English Proficient Student Issues: Focus on Middle and High Schools." Research reports and how-to materials are also available through the California Department of Education Web site <*http://www.cde.ca.gov/el*>. Both sites have discipline-specific resources, such as information on ways in which to integrate ELD with mathematics.

Academic Literacy for All

In a standards-based educational system, teachers using programs and techniques that develop students' academic literacy need to ensure that all students understand the significance of content and performance standards in each subject area and the way in which performance levels will be determined. Therefore, teachers should take the following steps:

- Review standards and performance criteria before starting and at key times during an instructional unit.
- Teach explicitly the academic-language functions and structures, and design opportunities for students to practice and apply them.

- Select words, phrases, and concepts on the basis of language essential to learning the targeted standards.
- Give frequent small-group assignments that require students to use academic vocabulary and concepts.

The student population of California's high schools is rich in diversity. This population varies in the languages and dialects spoken and in proficiency of academic and conversational English. All students, both English learners and native speakers of English, need academic literacy to be successful in a standards-based educational system.

Notes

1. *Reading/Language Arts Framework for California Public Schools, Kindergarten Through Grade Twelve.* Sacramento: California Department of Education, 1999, p. 19. The *Framework* is available on the Web site <*http://www.cde.ca.gov/cdepress/lang_arts.pdf*>.
2. *English–Language Arts Content Standards for California Public Schools, Kindergarten Through Grade Twelve.* Sacramento: California Department of Education, 1998, p. 56.
3. R. Scarella, "Effective Language Instruction for English Learners." Paper presented at the "Standards-Based Evaluation and Accountability Institute for English Learners and Immigrant Students: A Focus on English Language Development," sponsored by the California Department of Education, Santa Barbara, Calif., December 4, 2000; R. Gersten and S. Baker, "What We Know About Effective Practices for English-Language Learners," *Exceptional Children*, Vol. 66, No. 4 (2000), 459–70; Lily Wong Fillmore and Catherine E. Snow, *What Teachers Need to Know About Language.* ERIC Clearinghouse on Languages and Linguistics, 2000 (special report). Available on the Web site <*http://www.cal.org/ericcll/teachers/teachers.pdf*>.
4. *Reading/Language Arts Framework*, p. 279.
5. *Mathematics Content Standards for California Public Schools, Kindergarten Through Grade Twelve.* Sacramento: California Department of Education, 1999, p. 26.
6. Ibid., p. 33.

10

Using Data for Continual Improvement

Research demonstrates that student achievement increases when the school's goals and objectives for students include expectations for high academic achievement and preparation for post-secondary education and careers. Curriculum, instruction, assessment, scheduling, and professional development are designed and continually reviewed and improved based on available data.

Without data it is impossible to tell whether student skills or student mastery of standards is increasing. Moreover, what is true for student achievement is also true for other issues of standards-based education, such as school climate, family involvement, and student support plans.

This approach of looking at data to determine trends and then adjust programs to generate better results is part of a school's continual improvement effort. Continual improvement is the quest for quality, the process of discovering what research shows *should* be done and then eliminating the knowing-doing gap.[1] Most high schools are familiar with this quest for quality because of the voluntary *Focus on Learning* accreditation process, which calls for "... an ongoing perpetual cycle of assessment, planning, implementing, monitoring, and reassessment."[2]

Preparation for an accreditation includes gathering data on student mastery of state academic standards and local outcomes, the effectiveness of the school's operation, and progress on its action plan. To make the process effective requires valid collection, disaggregation, and analysis of various data. The three types of school data discussed in *Focus on Learning* are outcome, demographic, and process.

Outcome Data

The data describe to what extent a student or group of students has demonstrated particular knowledge, skills, or attitudes; completed certain steps in the educational process; or encountered problems.

School improvement efforts focus on increasing learning for *all* students, and outcome data on all students are often derived from standardized tests. Test data are the high-visibility indicators of student learning, but such data are indicators that must be used with other achievement information, such as classroom work and local assessemnts.

Schools may use norm-referenced test data effectively as one part of a continual improvement process. For example, disaggregated data may be used to compare the achievement of different subgroups within the school and in schools with similar characteristics. Low scores within a subgroup should lead to discussions about improving students' opportunity to learn and a more in-depth analysis of potential interventions. In addition, a standards-based item analysis of frequently missed questions can reveal a misalignment in the instructional process or a need for more in-depth or targeted instruction.

However, a norm-referenced test alone cannot effectively measure student learning because the test shows how students are doing compared with a norming group that may not represent the test-taking group; the test may not be aligned with adopted standards or the district curriculum; scores may not accurately reflect student learning if no personal stakes are involved;[3] and the multiple choice format used may limit the skill that can be assessed.[4]

Schools can get a *real* picture of student progress by comparing Standardized Testing and Reporting (STAR) test results, as a whole and by subgroup, with student performance on criterion-referenced tests, such as the *Golden State Examination (GSE)*. The resulting information may be augmented by site-based assessments of standards completed, such as end-of-course outcomes. Such an analysis will reveal whether upward trends in the STAR program reflect genuine increased achievement or increased preparation for the specific test. In Texas, for example, a Rand Corporation study of fourth-grade mathematics scores between 1994 and 1998 indicated that gains shown on the Texas high-stakes test were not corroborated by increased *NAEP* scores.[5]

Some schools also use *SAT* and *ACT* scores to find trends in student progress. This practice should be used with caution; *SAT* and *ACT* scores are not appropriate for measuring achievement trends or comparing states or districts unless considerable analysis has taken place.[6] However, data showing an increasing percentage of students taking those tests and a simultaneous stability in test scores strongly indicate that the school is moving toward improved outcomes for *all* students. See Table 6 for some common sources of student achievement data and how schools can use them.

Education is the only institution in America in which a product is prepared for 13 years and almost nothing is known of its success in the marketplace. Some programs, such as the regional occupational center/ program (ROC/P), and some schools make significant efforts to gather postgraduate data that provide insights into ultimate student outcomes. Examples of those types of information are as follows:

- *Student progress.* Some, though not all, University of California (UC) and California State University (CSU) campuses already provide information on student progress. If a significant number of high school graduates attend a local campus and the campus does not routinely provide that information, high schools should develop partnerships with the campus to obtain the information. Many high schools have also created partnerships with their local community colleges to secure data on student progress. Community colleges can often supply the information that educators request, such as reports on course completion (not just enrollment), degree and certificate completion, and transfer to four-year institutions.

Table 6 Uses of Achievement Data

You might want to use	*To determine*
Individual student data from STAR, *California High School Exit Examination (CAHSEE)*, and locally adopted assessments of standards mastery.	Which students need interventions tailored to meet their individual needs
STAR and *CAHSEE* grade and school data, by content area; standards mastery data from locally adopted assessments, by grade and schoolwide	Which standards require greater focus systemwide
STAR data, by class (Compare ninth grade scores in 2001 to tenth-grade scores in 2002.)	Whether a class of students is experiencing growth or loss of achievement compared with national norms
Data regarding enrollment in and completion of UC and CSU *a–g* requirements; Advanced Placement; International Baccalaureate; higher-level mathematics and science courses; and college units disaggregated by race or ethnicity, special education status, gender, and English learner (EL) status	1. Whether increasing numbers of students and subgroups are being prepared for higher education 2. Whether students in underrepresented populations are completing requirements at the same rate as that of whites and Asian Americans
Completion or graduation rate data and data from follow-up interviews with dropouts, disaggregated by race or ethnicity, EL status, and special education status	1. What needs to be changed to increase retention 2. Whether a disproportionate number of students in underrepresented populations are experiencing problems
Attendance and discipline data and data from follow-up focus groups, disaggregated by race or ethnicity and EL status	1. When and where problems are occurring 2. Whether a disproportionate number of students in underrepresented populations are experiencing problems 3. What families and students see as problems and potential solutions
GSE, Assessments in Career Education (ACE), and other voluntary state criterion-referenced tests data, disaggregated for race or ethnicity, EL status, and special education status	1. Whether increasing numbers of students and subgroups are being prepared for success in careers and colleges 2. Whether students in underrepresented populations are completing requirements at the same rate as that of whites and Asian Americans
SAT and *ACT* data regarding numbers of students and the race or ethnicity of students taking the test	Whether more students in general and more students in underrepresented populations are being motivated to apply to college
Postgraduate data	What *really* happened to graduates in college and in the workforce and what former students believe should be done differently in middle or high school

- *Other information.* The most valuable information to obtain is probably graduates' direct feedback about what was effective or ineffective in their high school education. A survey to get this type of information may be conducted in various ways. Mailing questionnaires and following up with phone calls to nonrespondents is a common approach. Schools can also conduct similar efforts through e-mail and their Web sites, a process that is relatively inexpensive. Another approach is to have a random sample of graduates called and interviewed. Commercial enterprises will conduct such a survey for a fee that is often negotiable. Some high schools have partnered with the sociology classes of local colleges that have used the survey as a class project. Other high schools have conducted this type of survey by using students in an American government class, a parent organization, or a retired teachers association.

Many schools may need to establish a new data collection system to assess student achievement of local outcomes. Traditionally, schools have exposed students to Expected Schoolwide Learning Results (ESLRs) and provided some samples of student work displaying student awareness of the ESLRs. However, schools have not systematically taught to the ESLRs, much less documented and assessed student performance and progress toward local outcomes.

The Graduation Career and Academic Plan (CAP) tracks student achievement of local outcomes, and the school data can be compiled from those data if the CAP's electronic files are maintained. Disaggregated outcome data will provide schools with the following information:

- The viability of the CAP for assessing local outcomes in various courses
- Trends in achievement of local outcomes
- Outcomes that pose the greatest difficulties to students
- The extent to which any particular racial, ethnic, or linguistic group or other subgroup may be encountering greater difficulties in achieving local outcomes

Demographic Data

Demographic data describe the school's students and staff. Those data are used together with achievement and process data to analyze how well the school has served its population and to identify necessary changes.

Demographics are the foundation of data disaggregation, or the separation of results for various population subgroups.[7] Disaggregation provides such information as how the achievement of one population subgroup compares with that of another and whether a subgroup is responding to existing interventions or needs additional support. Disaggregation may also indicate the extent to which the staff is acting on the belief that all students can master high standards.

Schools collect and report demographic data as part of the *Focus on Learning* process. Some data may not be a part of regular collection and analysis but may be particularly worth the effort. For example, California students in foster care have one of the nation's highest dropout rates.[8] Therefore, disaggregating data by foster care status may point to specific interventions for this group.

Process Data

The benefits of continual improvement may be missed altogether if data analysis is not aligned with the school's guiding principles and vision.[9] Those elements allow the school to focus the data analysis on what is most important locally.

A focused data analysis is not synonymous with a focus on achievement tests. Relying exclusively on tests can mislead schools into focusing solely on how to *look* better on tests. Schools should use their time figuring out how to *be* better places for *all* students.

However, most analysts agree that process data have objective and subjective aspects:

- The statistical analysis of the numbers and types of programs, practices, and institutional strategies in place *(objective)*

- The stakeholders' perception of the existence, accessibility, and effectiveness of these programs, practices, and institutional strategies *(subjective)*

Both the objective and subjective aspects of process data must be reviewed in depth for a valid analysis to be done.

For example, a group of teachers discusses the data for an after-school tutoring program that was initiated as one of the primary safety-net strategies for underachieving students. The statistics show that 74 students were using the program regularly, with no disaggregation of that number. When asked for their perception of who is actually using the tutoring service and how effective it is, the teachers acknowledge that the students who use the service are mainly high-achieving white and Asian American students and that the tutoring has gradually become targeted to this group. The teachers also agree that, although the service fills a need, it does not serve as a safety net for underachieving or underrepresented students.

Nearly everyone acts on his or her personal perceptions. Therefore, the only way to know that a shared vision exists is to assess individual perceptions. Questionnaires are the most common way to detect perceptions and changes in perceptions; however, observations, person-to-person interviews, telephone surveys, and focus groups may also be used. When the perceptions that exist within the school community are known, key staff can plan ways in which to change perceptions that inhibit improvement.

One strategy is to increase students', teachers', families', or board members' understanding of a new approach to education (e.g., block scheduling). This strategy may be applied when, for example, student achievement in language arts and history–social science courses has declined at a high school. Students, teachers, and families ask the school to explore ways to extend daily instructional time and time for teacher collaboration between courses. Acting on this request, the school leadership team identifies a model of block scheduling that research shows is likely to increase student achievement. The leadership team presents background information on the block schedule approach to the students, teachers, and families. Those who made the original request for improvement are ready to develop a plan for changing from the traditional bell schedule.

However, a group of influential teachers within the school believes in the traditional bell schedule. The leadership team realizes that it needs to change the influential teachers' perceptions. The leadership team provides research on the improvement in student achievement in similar schools after they shifted from a traditional five-period day to a block schedule. The team also brings in families, teachers, and students of a school that switched to the block schedule and asks them to discuss their experiences. The guests describe the transition from the traditional schedule to the block schedule approach in positive terms. This strategy results in an increased understanding of the new approach.

The second strategy builds on the first one. After the school community has been informed about and understands the new approach, those who are reluctant to accept it have the opportunity to experience it. Students, families, teachers, and board members visit a neighboring school that successfully changed to a block schedule. The visiting team should include representatives from those who have misgivings about a block schedule approach. Before the visit the leadership team may discuss key elements of *Seeing Progress: A Guide to Visiting Schools Using Promising Practices* with the students, families, teachers, and board members.[10] The visiting team follows students to experience a block schedule approach and talks with the teachers and students at the school.

These two strategies increase the school community's understanding of the new approach, and the school successfully changes to the block schedule.

By analyzing process data together with the outcome and demographic data, the school can make informed decisions regarding alterations in current approaches. A survey may reveal that work on *CAHSEE* targeted standards is paramount, including articulation of those standards with the feeder middle schools. Demographic data simply reflect changes in the school environment. However, demographic data combined with information on students' perceptions of the school can reveal whether groups of students are experiencing school differently. This strategy is exactly what the most successful Title I schools in the nation did to dramatically increase student achievement.[11]

Notes

1. Jeffrey Pfeffer and Robert I. Sutton, *The Knowing-Doing Gap.* Boston, Mass.: Harvard Business School Press, 2000. Jeffrey Pfeffer and others use the term *knowing-doing gap* to argue that in most organizations there is a gap between what people know and what people implement. The authors suggest that a clear strategy and a few key measures that are routinely tracked can help in mitigating the knowing-doing gap.
2. *Focus on Learning: Process Guide for Joint WASC Accreditation and CDE Program Quality Review.* Sacramento: California Department of Education, 2001, p. 2.
3. H. F. O'Neil and others, *Final Report on Experimental Studies of Motivation and NAEP Test Performance.* CSE Technical Report 427. Los Angeles: Center for Research on Evaluation, Standards, and Student Testing, 1997.
4. Ibid.
5. Stephen P. Klein and others, *What Do Test Scores in Texas Tell Us?* Santa Monica, Calif.: RAND, 2000 (issue paper). Available on the Web site <*http://www.rand.org/publications/IP/IP202/*>.
6. Stephen P. Klein and Laura Hamilton, *Large-Scale Testing.* Santa Monica, Calif.: RAND, 1999. Available on the Web site <*http://www.rand.org/publications/IP/IP182/*>.
7. Victoria L. Bernhardt, *Data Analysis for Comprehensive Schoolwide Improvement.* Larchmont, N.Y.: Eye on Education, 1998, p. 27.
8. "Education and Foster Care." Washington, D.C.: Casey Family Programs, National Center for Resource Family Support, 2001. Available on the Web site <*http://www.casey.org/cnc/ed_foster_care.htm*>.
9. Bernhardt, *Data Analysis,* p. 21.
10. *Seeing Progress: A Guide to Visiting Schools Using Promising Programs.* Washington, D.C.: American Federation of Teachers. Available on the Web site <*http://www.aft.org/edissues/rsa/guide/change/seeing.htm*>.
11. "Building School Capacity: Systemic Support for the Process of Change, Using Performance Data to Drive Continuous Improvement," in *Turning Around Low-Performing Schools: A Guide for State and Local Leaders.* Washington, D.C.: U.S. Department of Education, 1998. Available on the Web site <*http://www.ed.gov/pubs/turning/*>.

Appendix

Reflection Tool

The elements of a standards-based educational system found in effective high schools are noted in column 1. The elements are clustered under each of the chapters of *Aiming High* to allow you to refer to the chapter for more detail. Please circle the rating (1 through 4) in column 2 that best describes the extent to which ***you believe each of these elements is currently in place at your high school.***

Note: Although the Reflection Tool draws directly from the content in *Aiming High,* districts and schools are encouraged to personalize the tool to meet local needs.

Column 1	Column 2			
Elements of an effective standards-based education system	**Progress toward this element**			
	Not at all	*Planning*	*In progress*	*Fully implemented*
1. Using Standards-Based Education to Raise the Bar				
All faculty members can explain the differences between traditional instructional practices and standards-based practices.	1	2	3	4
All staff members can explain the benefits of a standards-based education system and the importance of aligning classroom activity with state standards.	1	2	3	4
Teachers of all subject areas, including career-technical education, align courses to standards.	1	2	3	4
The school constantly ensures that students have the opportunity to learn.	1	2	3	4
2. Understanding Standards, Assessment, and Accountability				
Core academic standards are the school's priority.	1	2	3	4
All students have multiple opportunities to learn and apply these standards across various content areas.	1	2	3	4
Staff members can identify ways to target standards, cluster standards around important concepts, and develop appropriate instruction.	1	2	3	4

Column 1	Column 2			
Elements of an effective standards-based education system	**Progress toward this element**			
	Not at all	*Planning*	*In progress*	*Fully implemented*
Academic content standards are aligned with high-stakes assessments and local accountability measures.	1	2	3	4
3. Creating the Context for Standards-Based Education				
The school culture supports standards-based education as evidenced by school displays, newsletters, Web sites, and so forth.	1	2	3	4
All students know what standards are, why they are important, and which standards are challenging for them.	1	2	3	4
All teachers reference standards frequently during instruction and assessment, and written assignments include the targeted standards.	1	2	3	4
All teachers work collaboratively on a regular, ongoing basis to ensure continuity and alignment in their assessment of standards and interpretation of student performance.	1	2	3	4
All administrators and counselors are conversant in the state standards.	1	2	3	4
Ample and appropriate professional development on standards-based education is provided through coaching, augmentations to professional development days, ongoing collaboration time, online professional development, and action research.	1	2	3	4
Comprehensive vertical alignment between feeder middle schools and the high school supports standards-based education.	1	2	3	4
4. Implementing Standards-Based Instruction and Assessment				
Faculty members involved in teaching and assessing a given standard agree on what the standard means; then the standard is rewritten to be readable to students.	1	2	3	4
All teachers understand the steps in standards-based instruction and assessment and what it means to "backwards map" to focus instruction on what the student must know and be able to do.	1	2	3	4

Column 1	Column 2			
Elements of an effective standards-based education system	**Progress toward this element**			
	Not at all	*Planning*	*In progress*	*Fully implemented*
The school has agreed on target standards, and faculty members have come to a consensus on the courses in which these standards will be taught and assessed and the order in which they will be introduced.	1	2	3	4
All target standards are taught and assessed both within and, when appropriate, outside the primary disciplines.	1	2	3	4
All students have multiple opportunities to learn and demonstrate mastery of the standards within and across courses.	1	2	3	4
The teacher becomes a coach who is there to help ensure student success on the test.	1	2	3	4
5. Initiating Instruction and Assessment of Local Outcomes				
All end-of-course assessments are used for local documentation of student learning.	1	2	3	4
Local outcomes capture what graduates should know and be able to do, including the state academic content standards.	1	2	3	4
All assessments and performance levels have been developed for local outcomes that cannot be assessed through existing accountability measures or through assessments of state academic standards.	1	2	3	4
The school's purpose is defined by ESLRs and academic standards that are integral to the school's ongoing continual improvement process.	1	2	3	4
6. Supporting Student Academic Success				
Supplemental instruction programs (e.g., tutorials, parallel classes, summer school, and intersession classes) are available both during and outside the school day and year for all students needing additional opportunities to master standards.	1	2	3	4
Distance learning is used to help all students master standards and local outcomes.	1	2	3	4
Independent study and embedded student support (e.g., AVID) are also offered as options.	1	2	3	4

Column 1	Column 2			
Elements of an effective standards-based education system	**Progress toward this element**			
	Not at all	*Planning*	*In progress*	*Fully implemented*
7. Creating Structural Supports for Student Success				
The school has created smaller, more personalized learning environments for all students through houses, schools-within-schools, looping, integrated courses, mentoring, and class size reduction.	1	2	3	4
Students have time for supplemental instruction within the school day.	1	2	3	4
The school schedule provides ample time for staff development and collaboration.	1	2	3	4
Each student has an ongoing and evolving plan based on academic, career, and personal standards.	1	2	3	4
All students can demonstrate that they are planning and documenting milestones for graduation and postsecondary pursuits through activities such as student-led conferences or exhibitions.	1	2	3	4
8. Promoting Family and Community Supports for Student Success				
The district and school involve all families in supporting maximum achievement for their children through workshops, student-led conferences, school-family compacts, and so forth.	1	2	3	4
The district and school have identified strategies to recruit and retain families in policy-level groups and meetings.	1	2	3	4
Postsecondary partners provide services to support academic success for all high school students (e.g., college classes on high school campuses, middle college programs, tutoring programs).	1	2	3	4
School-community models of tutoring, such as peer tutoring, cross-age tutoring, and intergenerational tutoring, serve all students in need.	1	2	3	4
School-community partnerships focus on student mastery of state content standards.	1	2	3	4

Column 1	Column 2			
Elements of an effective standards-based education system	**Progress toward this element**			
	Not at all	*Planning*	*In progress*	*Fully implemented*
9. Developing Academic Literacy for Student Success				
Teachers in the core content subject areas work with the English-language development instructors to focus on academic literacy for all students.	1	2	3	4
All teachers have CLAD certification or have participated in professional development on effective teaching strategies for English learners.	1	2	3	4
The staff uses the techniques of specially designed academic instruction in English to focus on academic literacy.	1	2	3	4
The staff uses scaffolding to convey content and ensure successful completion of tasks.	1	2	3	4
10. Using Data for Continual Improvement				
Disaggregated data on national, statewide, and locally developed tests are used consistently as a part of the schools' continual improvement process.	1	2	3	4
A system exists to store and easily retrieve disaggregated student achievement data for state and local outcomes.	1	2	3	4
All faculty members consistently understand and can articulate classroom and schoolwide processes.	1	2	3	4

Glossary

academic literacy. An advanced level of literacy that enables students to learn in depth the more complex knowledge and skills embedded in and defined by grade-level content standards.

Academic Performance Index (API). The API is the cornerstone of the Public Schools Accountability Act (PSAA). It is used to rank school performance, set growth targets, and provide similar-school comparisons. The API is a single number on a scale of 200 to 1,000 that indicates how well a school has performed academically. Although it is currently based on the results of the *Stanford 9*, additional factors, when available, will be included in the calculation of the API.

accountability. The extent to which an individual, group, or institution is held responsible for actions or performance. In education, schools and districts are now held accountable to provide evidence of student learning, academic achievement, and school improvement.

accreditation. The approval granted to an institution of learning by an official review board once the institution has met specific requirements. In California the Western Association of Schools and Colleges (WASC) accredits most comprehensive high schools. Other accrediting agencies (e.g., Baldridge) also review and accredit schools. Although participation in the accrediting process is voluntary, most schools use it as one means of assuring the public that the high school provides a high-quality education.

active learning. Learning in which instructional strategies engage students intellectually as they pursue given classroom assignments. Active learning is the opposite of passive learning, in which one-way communication from teachers to students is the norm. In active learning, students engage in activities such as gathering data, defining issues, stating problems, generating and testing hypotheses, drawing conclusions, and reporting and defending their work.

advisory program. A special type of group guidance experience in which students meet in small groups with the same teacher or counselor over an extended period of time, often for two or more years. A strong, trusting relationship is nurtured between students and their advisor.

assessment. A measurement tool used to collect information about student progress toward educational goals. The type of assessment to be used is determined by what needs to be assessed and how the results of assessment will be applied. Assessments can range from small-scale assessments used in the classroom by teachers to obtain day-to-day information about student progress, through medium-scale assessments used by school districts to evaluate the effectiveness of schools or educational programs, to large-scale assessments used by state or national bodies to assess the degree to which large educational goals have been met.

assessment system. The combination of a variety of relevant assessments in a comprehensive system designed to produce credible and dependable information on which important decisions can be made about students, schools, districts, or states.

benchmark assessment/assignment. A common, grade-level, standardized administration of an assessment/assignment that provides results that are comparable for all students. These results give an objective basis for measuring progress relative to standards and making decisions about individual students.

bias. A characteristic of a test that could reduce the chances for identifiable subpopulations to receive scores that accurately reflect their abilities to respond to the skill being measured. Common sources of bias may be related to language, gender, or cultural differences.

block scheduling. An arrangement of instructional time during the school day composed of any number of increments and scheduled flexibly to accomplish specific instructional goals.

California High School Exit Examination (CAHSEE). Authorized by state law in 1999, this examination assesses the curricular areas of reading, writing, and mathematics and is aligned with the state content standards adopted by the State Board of Education. Beginning with the graduating class of 2004, California public school students are required to pass *CAHSEE* (in addition to local criteria) to receive a high school diploma.

Carnegie unit. The course unit was developed in 1908 to measure the amount of time a student has studied a subject. For example, a total of 120 hours in one subject—meeting four or five times a week for 40 to 60 minutes, for 36 to 40 weeks each year—earns the student one unit of high school credit.

The Carnegie unit standardized high school course credits for the college admissions process.

content standards. Articulated and specific expectations of what students should know and be able to do in particular subjects and grade levels.

criterion-referenced assessment. An assessment designed to reveal what a student knows, understands, or can do relative to specific objectives or standards.

curriculum alignment. The process of aligning the curriculum and instruction to the content standards.

differentiated instruction. An approach to teaching (also referred to as "universal access") in which instruction is tailored to meet the needs of individual students. Such instruction is designed to provide each student with access to a rigorous and standards-based curriculum. Instructional decisions are based on the results of meaningful assessments. Differentiated instruction provides various ways for individual students to take in new information, assimilate it, and demonstrate their knowledge.

equity. The concern for fairness in access to instruction and assessment. Instruction that is fair permits all students to actively engage in the learning process. An assessment that is fair enables all students to show what they can do.

Expected Schoolwide Learning Result (ESLR). An interdisciplinary statement based on standards that embodies the school vision, is integral to the Focus on Learning process, and is usually adopted at the site level.

Focus on Learning. An ongoing school improvement process that assists a school in looking in depth at what currently exists and what needs to be improved relative to student learning and the school's program to enable the school to earn voluntary accreditation from the Western Association of Schools and Colleges (WASC). This process includes an analysis of standards attainment, followed by the development of ESLRs to help all students meet standards. The Focus on Learning Joint California Department of Education (CDE)/WASC process promotes collaboration between CDE, through its Single School Plan for Pupil Achievement (*Education Code* Section 64001[d]), and WASC.

Graduation Career and Academic Plan (CAP). A document based on the academic, career, and personal and social development standards in the National Standards for School Counseling Programs. It captures the student's ongoing and evolving plan for high school graduation, postsecondary education and training, and short- and long-term career goals.

It delineates what students have successfully completed relative to the milestones required to accomplish major goals.

high-stakes assessment. Testing that has significant consequences for the participants. A student's performance on a high-stakes examination might affect entry into a special class, college admission, or the awarding of a diploma or degree.

interdisciplinary team. A type of team teaching in which two or more teachers specializing in different subjects share the same students, usually for extended blocks of core instructional time, and plan and teach together to integrate their branches of knowledge. This approach may be contrasted with traditional high schools, which are typically departmentalized.

local outcome. Reflects the knowledge, attitudes, and skills that the community wants its graduates to demonstrate. It includes curricular standards, end-of-course outcomes, local graduation requirements, and Expected Schoolwide Learning Results.

low-stakes assessment. Testing that has few direct consequences for the participants. Such testing is generally used to provide information for the purpose of instructional improvement or curriculum redesign.

meta-analysis. A method used to draw conclusions from results collected from literature or narrative reviews and data pooled from independent studies.

multiple choice. A test-item format in which students select the correct answer from two or more predetermined choices.

multiple measures. The use of a variety of assessment measures (e.g., standardized test results, classroom assessments, tasks and projects, grades, and teacher evaluation) to provide a complete picture of a student's academic achievement.

National Assessment of Educational Progress (NAEP). An ongoing, national, voluntary assessment designed to measure what America's students in grades four, eight, and twelve know and can do in various academic subject areas. NAEP is administered by the National Center for Education Statistics at the U.S. Department of Education. California has participated in NAEP for nearly 30 years. One NAEP component provides states with a measure of their students' academic performance over time and in comparison with other participating states and students nationwide.

norm-referenced assessment. An assessment in which individual or group performance is compared with the performance of a larger group. Usually the larger group, or "norm group," is a national sample representing a wide cross-section of students.

opportunity to learn. Elements of the learning process, including support systems, that positively influence student achievement.

parallel courses. Courses that cover similar content but in a different context and depth.

peer tutoring. The practice of using student volunteers to give one-to-one assistance and instruction to other students. It is used to (1) reinforce regular classroom instruction; or (2) enable underachieving students to improve their basic skills or acquire knowledge.

performance assessment. Testing methods that require students to produce an answer or develop a product that demonstrates their knowledge or skill. Performance assessment can take many different forms, including writing short answers, performing mathematical computations, writing an extended essay, conducting an experiment, presenting an oral argument, or assembling a portfolio.

performance standards. Standards that identify levels of student achievement based on a mastery of specified content standards. California has identified five performance levels for its standards-based assessments: Advanced, Proficient, Basic, Below Basic, and Far Below Basic.

reliability. The degree to which the results of an assessment are dependable. Reliability is an indication of the consistency of scores over time, between scores, or of scores across different tasks or items that measure the same thing.

rubrics. A listing of specific criteria used to score constructed-response tasks in an assessment. A typical rubric contains a scoring scale, states all the different major traits or elements to be examined, and provides criteria for deciding what score to assign to student responses or performances. Scales may be quantitative (e.g., a score from 1 to 6) or qualitative (e.g., "adequate performance" or "minimal competency") or a combination of the two.

scaffolding. Support, guidance, or assistance provided to students prior to learning a new or complex task. A teacher scaffolds the task by engaging in appropriate instructional interactions designed to model skills, assist the student in understanding the task, or provide necessary information or background.

SCANS. The name used for the Secretary's Commission on Achieving Necessary Skills report *What Work Requires of Schools,* issued in 1991. The commission found that more than half of all high school graduates leave school without the knowledge or foundation required to find and hold a good job. The report identifies five competencies and a three-part foundation of skills and personal qualities that lie at the heart of job performance.

school culture. A term adapted from sociology and anthropology. It is a useful analytical tool to describe the intricate patterns of knowledge, beliefs, and values that serve as the basis for policy decisions, organizational practices, and human relationships in schools.

service-learning. An instructional strategy by which students learn through active participation in organized service that meets a community's needs. It is integrated into and enhances the academic curriculum. It is not to be confused with community service, which has long been a part of school activity through service clubs, student government, and leadership activities.

sheltered English. Involves adapting the language of texts or tasks and using methods familiar to language teachers (demonstrations, visuals, graphic organizers, or cooperative work) to make instruction more accessible to students of different English proficiency levels. This type of instruction can be given by the regular classroom or content teacher or by a language teacher with expertise in another academic area.

specially designed academic instruction in English (SDAIE). Instruction designed to help second-language learners improve their English-language skills while they focus on grade-level content in the core curriculum. More recently, however, the broad repertoire of instructional skills offered through SDAIE has become increasingly popular in classes for students at all levels of English-language ability, including native speakers of English.

standardized tests. Tests that are uniform in content, administration, and scoring and allow the comparison of results across student groups, classrooms, schools, districts, and states. There are two types of standardized tests: norm-referenced and criterion-referenced.

student performance levels. Levels that indicate the quality of a student's academic work on a continuum that assumes progression toward higher levels of academic achievement is both possible and expected. Students are expected to exhibit proficiency through multiple measures.

student success team (SST). Helps students, families, and teachers to seek solutions for maximizing student potential. It provides an opportunity for school staff, family members, and community agencies to present their concerns about individual students and to plan a positive course of action.

team teaching. A teaching arrangement in which two or more teachers are assigned the same students for at least part of the school day, either in a single period or in multiple-period core blocks, and together plan at least a portion of the instruction.

validity. The degree to which evidence and theory support the interpretation of test scores and the proposed uses of the test. It is the interpretations of test scores for proposed uses that are evaluated, not the test itself.

Selected References

The following publication and Web site data were provided by the High School Initiatives Office. Questions about the information should be addressed to that office at (916) 657-3470.

"Adapting Organizations to Increase Learning," in *Raising the Educational Achievement of Secondary School Students: An Idea Book.* Vol. 1, *Summary of Promising Practices.* Washington, D.C.: U.S. Department of Education, 1995. Available on the Web site <*http://www.ed.gov/pubs/Raising/vol1/pt3.html*>.

Ainsworth, Patrick A. "Policy Alternatives for Increasing the Number of California's Graduating High School Students Having the Essential Employability Skills Necessary to Compete in the New Economy." La Verne, Calif.: University of La Verne, 2000 (dissertation).

American Federation of Teachers. E-testimony to the Web-based Education Commission, August 18, 2000, p. 3 of AFT testimony. Available on the Web site <*http://www.webcommission.org/*>.

Arter, Judy, and Jay McTighe. *Scoring Rubrics in the Classroom: Using Performance Criteria for Assessing and Improving Student Performance.* Thousand Oaks, Calif.: Corwin Press, Sage Publications, 2000. Available on the Web site <*http://www.nwrel.org/nwreport/jan01/scoringforsuccess.html*>.

Assessments, Ideas, and Rubrics. Available on the Chicago Public Schools Instructional Intranet <*http://intranet.cps.k12.il.us/Assessments/*>.

August, D., and L. Pease-Alvarez. *Attributes of Effective Programs and Classrooms Serving English Language Learners.* Santa Cruz, Calif.: National Center for Research on Cultural Diversity and Second Language Learning, 1996.

Austin, Terri. *Changing the View: Student-Led Parent Conferences.* Portsmouth, N.H.: Heinemann Publishers, 1994.

Benard, Bonnie. *Fostering Resilience in Children.* Urbana: ERIC on Elementary and Early Childhood Education, University of Illinois, 1995. To order a copy, contact ERIC, 805 W. Pennsylvania Avenue, Urbana, IL 61801-4897. Telephone (217) 333-1386.

Benard, Bonnie. *Turning the Corner: From Risk to Resiliency.* Portland, Ore.: Western Regional Center for Drug-Free Schools and Communities, 1993.

Benner, Chris; Bob Brownstein; and Amy B. Dean. *Walking the Lifelong Tightrope: Negotiating Work in the New Economy.* San Jose, Calif.: A joint publication of the Working Partnerships USA and the Economic Policy Institute, 1999.

Benson, Barbara, and Susan Barnett. *Student-Led Conferencing Using Showcase Portfolios.* Thousand Oaks, Calif.: Corwin Press, 1999.

Bernhardt, Victoria L. *Data Analysis for Comprehensive Schoolwide Improvement.* Larchmont, N.Y.: Eye on Education, 1998.

Blueprints for Language Arts and Mathematics for *California High School Exit Examination.* Available on the Web site <*http://www.cde.ca.gov/statetests/cahsee/admin.html*>.

Bottoms, G., and B. Creech. *Reading Performance of Career Bound Students: Good News for the 1996 High Schools That Work Assessment.* Atlanta, Ga.: Southern Regional Education Board, 1997.

Breaking Ranks: Changing an American Institution. Reston, Va.: National Association of Secondary School Principals, 1996.

Brown, James R. "The Challenge of Change: Reinventing High School." Keynote address given before the Improving America's Schools Conference Institute, Sacramento, California, September 19, 2000.

"Building School Capacity: Systemic Support for the Process of Change, Using Performance Data to Drive Continuous Improvement," in *Turning Around Low-Performing Schools: A Guide for State and Local Leaders.* Washington, D.C.: U.S. Department of Education, 1998. Available on the Web site <*http://www.ed.gov/pubs/turning*>.

Burch, C. Beth. "Creating a Two-Tiered Portfolio Rubric," *English Journal,* Vol. 86, No. 1 (January 1997), 55–58.

Bush, T. "International High School: How Work Works," in *Public Schools That Work: Creating Community.* Edited by Gregory A. Smith. New York: Routledge, 1993.

Caine, Renate Nummela, and Geoffrey Caine. *Making Connections: Teaching and the Human Brain.* Old Tappan, N.J.: Addison-Wesley Longman, Inc., 1994.

California Economic Strategy Panel. *Collaborating to Compete in the New Economy: An Economic Strategy for California.* Sacramento: Trade and Commerce Agency, 1996.

California Employment Development Department. "California—Occupational Employment Projections, 1998–2008." Available on the Web site <*http://www.calmis.cahwnet.gov/file/occproj/cal$tb6.htm*>.

California's Changing Income Distribution. Sacramento, Calif.: Legislative Analyst's Office, August 10, 2000. Available on the Web site <*http://www.lao.ca.gov/0800_inc_dist/0800_income_distribution.html*>.

Canady, R. L., and M. D. Rettig. "Unlocking the Lockstep High School Schedule," *Phi Delta Kappan* (December 1993), 310–14.

The Class-Size Reduction Program: Boosting Student Achievement in Schools Across the Nation. Washington, D.C.: U.S. Department of Education, 2000. Available on the Web site <*http://www.ed.gov/offices/OESE/ClassSize/reports.html*>.

A Compact for Learning: An Action Handbook for Family-School-Community Partnerships. Washington, D.C.: U.S. Department of Education, 1997. Available on the Web site <*http://www.ed.gov/pubs/Compact/*>.

Cotton, Kathleen. *School Size, School Climate, and School Performance.* Portland, Ore.: Northwest Regional Laboratory, 1997. Available on the Web site <*http://www.nwrel.org/scpd/sirs/10/c020.html*>.

Covey, Stephen R. *The Seven Habits of Highly Effective People.* New York: Simon and Schuster, 1990.

Darling-Hammond, Linda. "Making Relationships Between Standards, Frameworks, Assessment, Evaluation, Instruction, and Accountability," *Restructuring Brief,* No. 21 (November 1999). California Professional Development Consortium. Available on the Web site<*http://www.sonoma.k12.ca.us/Depts/pdc/PDF/brief_21.pdf*>.

Designs for Learning. Information is available on the Web site <*http://www.cde.ca.gov/pd/pdf/designsintro.pdf*>.

Dispelling the Myth: High Poverty Schools Exceeding Expectations. Washington, D.C.: Education Trust, 1999. Available on the Web site <*http://www.edtrust.org/main/reports.asp*>.

"Education and Foster Care." Washington, D.C.: Casey Family Programs, National Center for Resource Family Support, 2001. Available on the Web site <*http://www.casey.org/cnc/ed_foster_care.htm*>.

"Educational Attainment of the Population 25 Years and Over, by State, Including Confidence Intervals of Estimates." Washington, D.C.: U.S. Census Bureau, 1999. Available on the Web site <*http://www.census.gov/population/socdemo/education/p20-528/tab13.pdf*>.

Einder, D. V., and H. L. Bishop. "Block Scheduling the High School: The Effects on Achievement, Behavior, and Student-Teacher Relationships." *Bulletin of the National Association of Secondary School Principals* (May 1997), 45–54.

English–Language Arts Content Standards for California Public Schools, Kindergarten Through Grade Twelve. Sacramento: California Department of Education, 1998.

ESTRELLA (Encourage Students Through Technology to Reach High Expectations in Learning, Life Skills, and Achievement). Available on the Web site *<http://www.estrella.org>*.

Family-School Compacts. The Challenge Toolkit Series. Sacramento: California Department of Education, 1997. Available on the Web site *<http://www.cde.ca.gov/fc/family/compacts.html>*.

Feldman, A. "Teachers Learning from Teachers: Knowledge and Understanding in Collaborative Action Research." Palo Alto: Stanford University, 1993 (dissertation).

Fellmeth, Robert C. "The Road Not Taken: Our Children," *The Sacramento Bee*, October 3, 1999. Forum 1, 4.

Focus on Learning: Process Guide for Joint WASC Accreditation and CDE Program Quality Review. Sacramento: California Department of Education, 2001.

The Formula for Success: A Business Leader's Guide to Supporting Math and Science Achievement. Washington, D.C.: Business Coalition for Education Reform, 1999. Available on the Web site *<http://www.bcer.org/timss/>*.

Gaustad, Joan. "Implementing Looping," *ERIC Digest 123* (December 1998). Available on the Web site *<http://eric.uoregon.edu/publications/digests/digest123.html>*.

Gerald, Debra E. "Public Elementary and Secondary Enrollment," in *Projections of Education Statistics to 2009.* Washington, D.C.: National Center for Education Statistics, 1998. Available on the Web site *<http://www.nces.ed.gov/>*.

Gersten, R., and S. Baker. "What We Know About Effective Practices for English-Language Learners," *Exceptional Children*, Vol. 66, No. 4 (2000), 459–70.

Grant, Jim, and others. *The Looping Handbook: Teachers and Students Progressing Together.* Peterborough, N.H.: Crystal Springs Books, 1996.

Gray, Kenneth. *Getting Real: Helping Teens Find Their Future.* Thousand Oaks, Calif.: Corwin Press, Inc., 2000. Quoting N. Kostelba, "Variables predicting persistence of community college students." University Park: Pennsylvania State University, 1997 (dissertation).

Greenspan, Alan. "Job Insecurity and Technology." Address given before the Federal Reserve Bank of Boston's Conference on Technology and Growth, June 1996.

Hackmann, Donald G. "Student-Led Conferences at the Middle Level," *ERIC Digest* (May 1997). Available on the Web site *<http://www.ed.gov/databases/ERIC_Digests/ed407171.html>*.

"Hard Work and High Expectations: Motivating Students to Learn." Washington, D.C.: U.S. Department of Education, 1992. Available on the Web site *<http://npin.org/library/pre1998/n00256/n00256.html#intro>*.

Hartocollis, Anemona. "Brooklyn School Breaks from the Pack: A Case Study in How State Testing Was Used to Improve Education," *The New York Times*, October 19, 2000. An abstract of the article is available in the archive section of the *Times* Web site <*http://www.nytimes.com*>.

Harvey, Thomas R., and Bonita Drolet. *Building Teams, Building People.* Lancaster, Pa.: Technomic Publications, 1994.

Haycock, Kati. *Good Teaching Matters: How Well-Qualified Teachers Can Close the Gap.* Washington, D.C.: Education Trust, 1998. Available on the Web site <*http://www.edtrust.org/main/reports.asp*>.

The High Stakes of High-Stakes Testing. WestEd Policy Brief. San Francisco: WestEd, February 2000.

How People Learn. Edited by John D. Bransford, A. Brown, and R. Cocking. Washington, D.C.: National Academy Press, 1999.

Kalkowski, Page. "Peer and Cross-Age Tutoring," *School Improvement Research Series*, Close Up #18 (March 1995). Portland, Ore.: Regional Educational Laboratory. Available on the Web site <*http://www.nwrel.org/scpd/sirs/9/c018.html*>.

Kang, H. W. "Helping Second Language Readers Learn from Content Area Text Through Collaboration and Support," *Journal of Reading*, Vol. 37, No. 8 (1994), 646–52.

Kendall, J. S., and R. J. Marzano. *The Systemic Identification and Articulation of Content Standards and Benchmarks: Update.* Aurora, Colo.: Mid-continent Research for Education and Learning, 1995.

Klein, Stephen P., and Laura Hamilton. *Large-Scale Testing.* Santa Monica, Calif.: RAND, 1999. Available on the Web site <*http://www.rand.org/publications/IP/IP182/*>.

Klein, Stephen P., and others. *What Do Test Scores in Texas Tell Us?* Santa Monica, Calif.: RAND, 2000 (issue paper). Available on the Web site <*http://www.rand.org/publications/IP/IP202/*>.

Kotkin, Joel, and John M. Olin. *Business Leadership in the New Economy: Southern California at a Crossroads.* Claremont, Calif.: La Jolla Institute, 1998.

Lee, V., and J. Smith. *Collective Responsibility for Learning and Its Effects on Gains in Achievement for Early Secondary School Students.* Madison, Wis.: National Center on the Organization and Restructuring of Schools, 1995.

Levesque, Karen, and others. *Vocational Education in the United States: Toward the Year 2000.* Washington, D.C.: U.S. Department of Education, National Center for Educational Statistics, 2000.

MacIver, D. J. "Meeting the Needs of Young Adolescents: Advisory Groups, Interdisciplinary Teaching Teams, and School Transition Programs," *Phi Delta Kappan*, Vol. 71, No. 6 (1990), 457–64.

Marzano, Robert. "Integrate What Research Says About Assessment, Instruction, and Learning," *Restructuring Brief*, No. 19 (November 1999). California Professional Development Consortia. Available on the Web site <*http://www.sonoma.k12.ca.us/Depts/pdc/PDF/brief_19.pdf*>.

Marzano, Robert J. *A Theory-Based Meta Analysis of the Research on Instruction.* Aurora, Colo.: Mid-continent Research for Education and Learning, 1998. Available on the Web site <*http://www.mcrel.org/products/learning/meta.pdf*>.

Mathematics Content Standards for California Public Schools, Kindergarten Through Grade Twelve. Sacramento: California Department of Education, 1999.

Mitchell, Ruth. "Focusing on Learning: Change Driven by Standards," *Center X Quarterly*, Vol. 7, No. 1 (Fall 1994). Quoted in Kate Jamentz, *Standards: From Document to Dialogue.* San Francisco: Western Assessment Collaborative, WestEd, 1998. To order a copy, contact WestEd, 730 Harrison Street, San Francisco, CA 94107-1242. Available on the Web site <*http://www.wested.org/cs/wew/view/rs/18*>.

Moskal, Barbara M. "Scoring Rubrics: What, When, and How?" *Practical Assessment, Research, and Evaluation*, Vol. 7, No. 3 (2000). Available on the Web site <*http://ericae.net/pare/getvn.asp?v=7&n=3*>.

National Alliance of Business. "The Multifaceted Returns to Education," *Workforce Economics Trends*, No. 1 (June 1998), 1.

National Library of Medicine. "The Visible Human Project." Available on the Web site <*http://www.nlm.nih.gov/research/visible/visible_human.html*>.

National Standards for School Counseling Programs. Alexandria, Va.: American School Counselor Association, 1997. To obtain a copy, contact the ASCA, 1801 North Fairfax Street, #310, Alexandria, VA 22314; telephone 1-800-306-4722. Available on the Web site <*http://www.schoolcounselor.org*>.

A New Generation of Evidence: The Family Is Critical to Student Achievement. Edited by Anne T. Henderson and Nancy Berla. Washington, D.C.: National Committee for Citizens in Education, 1994.

"New Survey Challenges Extent of Public Backlash Against State Testing." Washington, D.C.: The Business Roundtable, September 13, 2000, (press release). Available on the Web site <*http://www.brt.org/press.cfm/453*>.

Newmann, Fred M., and others. *Authentic Intellectual Work and Standardized Tests: Conflict or Coexistence?* Consortium on Chicago School Research, 2001. Available on the Web site <*http://www.consortium-chicago.org/*>.

Noguera, Pedro. "Developing Systems to Drive Student Success," *Restructuring Brief*, No. 20 (November 1999). California Professional Development Consortia. Available on the Web site <*http://www.sonoma.k12.ca.us/Depts/pdc/PDF/brief_20.pdf*>.

O'Neil, H. F., and others. *Final Report on Experimental Studies of Motivation and NAEP Test Performance.* CSE Technical Report 427. Los Angeles: Center for Research on Evaluation, Standards, and Student Testing, 1997.

O'Neil, J. "Finding Time to Learn," *Educational Leadership,* Vol. 53, No. 3 (1995), 11–15.

Parent Notification Assistance Packet for Districts and Schools. Available on the Web site <*http://www.cde.ca.gov/statetests/hsee/HSEE.Notif.Pkt.pdf*>.

Perleman, Lewis J. *School's Out.* New York: William Morrow and Company, 1992.

Pfeffer, Jeffrey, and Robert I. Sutton. *The Knowing-Doing Gap.* Boston, Mass.: Harvard Business School Press, 2000.

Preparing Your Child for College: A Resource Book for Parents. Washington, D.C.: U.S. Department of Education, 1996. Available on the Web site <*http://www.ed.gov/pubs/Prepare/*>.

Raywid, Mary Anne. "Synthesis of Research, Small Schools: A Reform That Works," *Educational Leadership*, Vol. 55, No. 4 (December 1997/January 1998).

Reading/Language Arts Framework for California Public Schools, Kindergarten Through Grade Twelve. Sacramento: California Department of Education, 1999. The *Framework* is available on the Web site <*http://www.cde.ca.gov/cdepress/lang_arts.pdf*>.

Reeves, Douglas B. *Making Standards Work.* Denver, Colo.: Center for Performance Assessment, 1998.

Resnick, Lauren. *Education and Learning to Think.* Washington, D.C.: National Academy Press, 1987.

Rettig, M. D., and R. L. Canady. "All Around the Block: The Benefits and Challenges of a Non-Traditional School Schedule," *The School Administrator,* Vol. 8, No. 53 (1996), 8–15.

Scarella, R. "Effective Language Instruction for English Learners." Paper presented at the "Standards-Based Evaluation and Accountability Institute for English Learners and Immigrant Students: A Focus on English Language Development," sponsored by the California Department of Education, Santa Barbara, Calif., December 4, 2000.

School Attendance Review Board Handbook. Sacramento: California Department of Education, 1995.

Schwartz, Peter, and others. *The Long Boom: A Vision for the Coming Age of Prosperity.* New York: Perseus Books, 1999.

Schwartz, Wendy. "Opportunity to Learn Standards: Their Impact on Urban Students," *ERIC Digest* (1995). Available on the Web site <*http://www.ericae.net/db/edo/ED389816.htm*>.

Second to None: A Vision of the New California High School. Report of the California High School Task Force. Sacramento: California Department of Education, 1992.

Seeing Progress: A Guide to Visiting Schools Using Promising Programs. Washington, D.C.: American Federation of Teachers.

Service-Learning: Linking Classrooms and Communities. Sacramento: California Department of Education, 1999. Available on the Web site <*http://www.cde.ca.gov/calserve/taskforcereport.htm*>.

So Much to Say: Adolescents, Bilingualism, and ESL in the Secondary School. Edited by C. Faltis and P. Wolfe. New York: Teachers College Press, 1999.

Solomon, J., and N. Rhodes. *Conceptualizing Academic Language.* Research Report No. 15. Santa Cruz, Calif.: National Center for Research on Cultural Diversity and Second Language Learning, 1995.

SST: Student Success Teams. Santa Cruz, Calif.: California Dropout Prevention Network, 2000.

Standards for Educational and Psychological Testing. Washington, D.C.: American Educational Research Association, 1999.

The State of State Standards 2000. Washington, D.C.: Thomas B. Fordham Foundation, 2000. Available on the Web site <*http://www.edexcellence.net/library/soss2000/2000soss.html*>.

Steward, Thomas A. *Intellectual Capital.* New York: Doubleday Publishers, 1997.

Taking Center Stage: A Commitment to Standards-Based Education for California's Middle Grades Students. Sacramento: California Department of Education, 2001.

Thomas, Karen. "Web-Based High School to Go Nationwide," *USA Today,* Tech Report, October 25, 2000. Article available on the Web site <*http://www.usatoday.com/life/cyber/tech/cti716.htm*>.

Visher, Mary G., and others. *Key High School Reform Strategies: An Overview of Research Findings.* Berkeley: MPR Associates, Inc., 1999. Available on the Web site <*http://www.ed.gov/offices/OVAE/nahs*>.

Wenglinsky, Harold. *Does It Compute? The Relationship Between Educational Technology and Student Achievement in Mathematics.* Princeton, N.J.: Educational Testing Service, 1996. Available on the Educational Testing Service file transfer protocol <*ftp://etsis1.ets.org/pub/res/technolog.pdf*>.

What Work Requires of Schools: A SCANS Report for America 2000. Washington, D.C.: The Secretary's Commission on Achieving Necessary Skills (SCANS), U.S. Department of Labor, June 1991. Available on the Web site <*http://wdr.doleta.gov/SCANS/whatwork/whatwork.html*>.

Wong Fillmore, Lily, and Catherine E. Snow. *What Teachers Need to Know About Language.* ERIC Clearinghouse on Languages and Linguistics, 2000 (special report). Available on the Web site <*http://www.cal.org/ericcll/teachers/teachers.pdf*>.

Wyatt, Linda. "More Time, More Training," *The School Administrator,* Vol. 53, No. 8 (1996), 16.

Publications Available from the Department of Education

This publication is one of over 700 that are available from the California Department of Education. Some of the more recent publications or those most widely used are the following:

Item no.	Title (Date of publication)	Price
1537	Arts Education Program Toolkit: A Visual and Performing Arts Program Assessment Process (2001)	$13.25
1372	Arts Work: A Call for Arts Education for All California Students (1997)	11.25
1467	Aviation Education and Technology Resources for Teachers (2000)	15.00
1530	California Private School Directory, 2000-01	17.50
1529	California Public School Directory, 2001	19.50
1439	Check It Out! Assessing School Library Media Programs (1998)	9.25
1525	College Students Working in After-School and School-Age Care Programs: A Guide for College Students (2001)	10.50
1476	Educating English Learners for the Twenty-First Century: The Report of the Proposition 227 Task Force (1999)	10.50
1509	Elementary Makes the Grade! (2000)	10.25
1389	English–Language Arts Content Standards for California Public Schools, Kindergarten Through Grade Twelve (1998)	9.25
1468	Enrolling Students Living in Homeless Situations (1999)	8.50
0804	Foreign Language Framework for California Public Schools, Kindergarten Through Grade Twelve (1989)	7.25
1382	Getting Results, Part I: California Action Guide to Creating Safe and Drug-Free Schools and Communities (1998)	15.25
1493	Getting Results, Part II: California Action Guide to Tobacco Use Prevention Education (2000)	13.50
1482	Getting Results, Update 1, Positive Youth Development: Research, Commentary, and Action (1999)	12.00
1380	Health Careers Education 2000: A Program Guide (1998)	20.00
1064	Health Framework for California Public Schools, Kindergarten Through Grade Twelve (1994)	10.00
1488	History–Social Science Content Standards for California Public Schools, Kindergarten Through Grade Twelve (2000)	9.00
1531	History–Social Science Framework for California Public Schools, Kindergarten Through Grade Twelve, 2001 Updated Edition with Content Standards (2001)	13.50
1457	Mathematics Content Standards for California Public Schools, Kindergarten Through Grade Twelve (1999)	8.50
1508	Mathematics Framework for California Public Schools, Kindergarten Through Grade Twelve (2000 Revised Edition)	17.50
1065	Physical Education Framework for California Public Schools, Kindergarten Through Grade Twelve (1994)	7.75
1222	Practical Ideas for Teaching Writing as a Process at the High School and College Levels (1997)	18.00
1502	Programs for Deaf and Hard of Hearing Students: Guidelines for Quality Standards (2000)	12.00
1462	Reading/Language Arts Framework for California Public Schools, Kindergarten Through Grade Twelve (1999)	17.50
1526	The Results of the Arts Work Survey of California Public Schools (2001)	9.50
1191	Safe Schools: A Planning Guide for Action (1995 Edition)	11.00
1511	SB 65 School-Based Pupil Motivation and Maintenance Program Guidelines (2000-01 Edition)	10.00
1505	School Attendance Improvement Handbook (2000)	14.25
1402	School Safety—Addendum to Safe Schools: A Planning Guide for Action (1998)	8.25
1496	Science Content Standards for California Public Schools, Kindergarten Through Grade Twelve (2000)	9.00
0870	Science Framework for California Public Schools, Kindergarten Through Grade Twelve (1990)	9.50
1445	Science Safety Handbook for California Public Schools (1999 Edition)	17.50
1452	Service-Learning: Linking Classrooms and Communities (1999)	7.00
1532	Standards for Evaluating Instructional Materials for Social Content (2000 Edition) (2001)	8.00
1407	Steering by Results—A High-Stakes Rewards and Interventions Program for California Schools and Students (1998)	8.00
1472	Strategic Teaching and Learning: Standards-Based Instruction to Promote Content Literacy in Grades Four Through Twelve (2000)	12.50
1503	Taking Center Stage: A Commitment to Standards-Based Education for California's Middle-Grades Students (2001)	13.50
1548	Visual and Performing Arts Content Standards for California Public Schools (2001)	10.50
1261	Visual and Performing Arts Framework for California Public Schools, Kindergarten Through Grade Twelve (1996)	15.00

Orders should be directed to:

California Department of Education
CDE Press, Sales Office
P.O. Box 271
Sacramento, CA 95812-0271

Please include the item number and desired quantity for each title ordered. Shipping and handling charges are additional, and purchasers in California also add county sales tax.

Mail orders must be accompanied by a check, a purchase order, or a credit card number, including expiration date (VISA or MasterCard only). Purchase orders without checks are accepted from educational institutions, businesses, and governmental agencies. Telephone orders will be accepted toll-free (1-800-995-4099) for credit card purchases. *All sales are final.*

The *Educational Resources* catalog contains annotated listings of departmental publications, videos, and other instructional materials. Free copies of the catalog may be obtained by writing to the address given above or by calling (916) 445-1260.

Prices and availability are subject to change without notice. Please call 1-800-995-4099 for current prices and shipping charges.

OSP 02 69122

R01-028 103-0037-01 6/02 10,000

ISBN 0-8011-1559-0

U.S. Department of Education
Office of Educational Research and Improvement (OERI)
National Library of Education (NLE)
Educational Resources Information Center (ERIC)

NOTICE

Reproduction Basis

☒ This document is covered by a signed "Reproduction Release (Blanket)" form (on file within the ERIC system), encompassing all or classes of documents from its source organization and, therefore, does not require a "Specific Document" Release form.

☐ This document is Federally-funded, or carries its own permission to reproduce, or is otherwise in the public domain and, therefore, may be reproduced by ERIC without a signed Reproduction Release form (either "Specific Document" or "Blanket").

EFF-089 (1/2003)